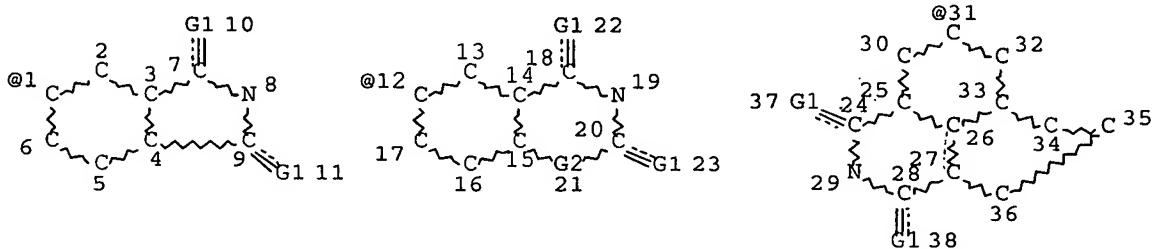


=> d que 144

L15 9424 SEA FILE=REGISTRY ABB=ON PLU=ON 591.160/RID  
 L16 244346 SEA FILE=REGISTRY ABB=ON PLU=ON 333.79/RID  
 L19 2022 SEA FILE=REGISTRY ABB=ON PLU=ON 591.266/RID  
 L22 313700 SEA FILE=REGISTRY ABB=ON PLU=ON 591.100/RID  
 L25 244123 SEA FILE=REGISTRY ABB=ON PLU=ON 591.50/RID  
 L28 22062 SEA FILE=REGISTRY ABB=ON PLU=ON 1784.14/RID  
 L29 831929 SEA FILE=REGISTRY ABB=ON PLU=ON L15 OR L16 OR L19 OR L22  
 OR L25 OR L28  
 L31 STR



G3 39

VAR G1=O/S  
 VAR G2=O/S/N/C  
 VAR G3=1/12/31  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 MLEVEL IS CLASS AT 34 35  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS UNLIMITED AT 34 35

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

L33 240554 SEA FILE=REGISTRY SUB=L29 SSS FUL L31  
 L35 74551 SEA FILE=HCAPLUS ABB=ON PLU=ON L33  
 L36 19647 SEA FILE=HCAPLUS ABB=ON PLU=ON "PRINTING PLATES"+PFT,NT/C  
 T  
 L37 188 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L36  
 L38 150 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND LITHOG?  
 L40 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND (PHOTORESIST? OR  
 PHOTO(A)RESIST? OR RESIST?)  
 L42 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND (POF OR PRP)/RL  
 L43 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 OR L42  
 L44 40 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 AND (1840-2003)/PRY,AY  
 ,PY

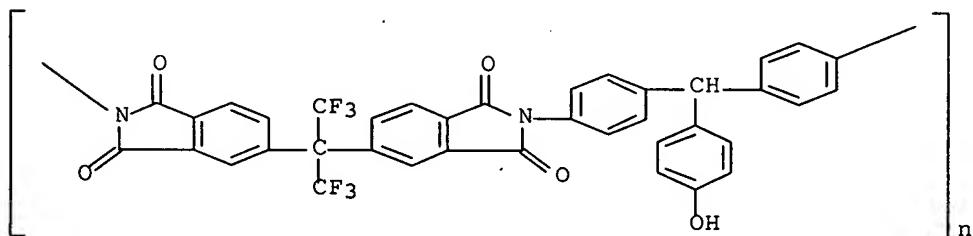
=> d 144 1-40 ibib ed abs hitstr hitind

L44 ANSWER 1 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:323248 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:382232

TITLE: Photosensitive compositions forming films with  
 good alkali developability, chemical  
 resistance, adhesiveness, and flexibility  
 INVENTOR(S): Nagashima, Akira; Nakamura, Ippei  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005099138	A	20050414	JP 2003-330051	20030922
PRIORITY APPLN. INFO.:				JP 2003-330051
				20030922
				<--
				<--

ED Entered STN: 15 Apr 2005  
 AB The compns., useful for manufacturing wear-resistant lithog. plates, contain  
 o-naphthoquinone diazides and alkali-soluble resins having amido, urea, and/or  
 ester linkage-based main chains and alkali-soluble acid groups chosen from  
 phenolic OH, sulfonamide, and/or active imide.  
 IT 176736-72-4  
 (photosensitive compns. forming films with good alkali  
 developability, chemical resistance, adhesiveness, and  
 flexibility for wear-resistant lithog. plates)  
 RN 176736-72-4 HCPLUS  
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl) [2,2,2-trifluoro-1-  
 (trifluoromethyl) ethylidene] (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-  
 diyl)-1,4-phenylene[(4-hydroxyphenyl)methylene]-1,4-phenylene] (9CI)  
 (CA INDEX NAME)



IC ICM G03F007-032  
 ICS G03F007-022; G03F007-00  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 38  
 ST pos photoimaging alkali soluble resin naphthoquinone diazide;  
 hydroxyisophthalic acid oxyaniline copolymer presensitized  
 lithog plate; alkali soluble polyamide polyimide polyurea  
 polyester photoimaging  
 IT Polyimides, uses  
 (fluorine-containing; photosensitive compns. forming films with good  
 alkali developability, chemical resistance, adhesiveness,  
 and flexibility for wear-resistant lithog.)

plates)

IT Polyamides, uses

Polyimides, uses  
(photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Polyethers, uses

Polyimides, uses  
(polyamide-; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Polyimides, uses  
(polybenzoxazole-, fluorine-containing; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Fluoropolymers, uses  
(polybenzoxazole-polyimide-; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Polyethers, uses  
(polyester-; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Polyamides, uses

Polyesters, uses  
(polyether-; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Polybenzoxazoles  
(polyimide-, fluorine-containing; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Fluoropolymers, uses

Polyamides, uses  
(polyimide-; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Polyurethanes, uses  
(polyurea-; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Polyureas  
(polyurethane-; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Photoimaging materials  
(pos.; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT Lithographic plates  
(presensitized; photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT 849624-65-3 849624-70-0  
(assumed monomers; photosensitive compns. forming films with good

alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT 1143-72-2D, 2,3,4-Trihydroxybenzophenone, ester with naphthoquinone-1,2-diazide-5-sulfonyl chloride 3770-97-6D, Naphthoquinone-1,2-diazide-5-sulfonyl chloride, ester with 2,3,4-trihydroxybenzophenone 36451-09-9 (photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

IT 625-22-9D, Di(n-butyl)sulfate, reaction products with 5-hydroxyisophthalic acid-m-phenylenediamine copolymer 111160-58-8, 5-Hydroxyisophthalic acid-4,4'-oxydianiline copolymer 111160-59-9 130165-95-6, 4,4'-Diaminodiphenylmethane-5-hydroxyisophthalic acid copolymer 130167-11-2 143848-40-2, 2,3,3',4'-Biphenyltetracarboxylic anhydride-3,3'-dihydroxybenzidine copolymer 144376-55-6 145395-42-2D, butylated 145756-41-8D, 5-Hydroxyisophthalic acid-m-phenylenediamine copolymer, butylated 165054-78-4, 4,4'-Hexafluoroisopropylidenediphthalic anhydride-3,3'-dihydroxybenzidine copolymer 176736-71-3, 4,4'-Diamino-4''-hydroxytriphenylmethane-4,4'-hexafluoroisopropylidene diphthalic anhydride copolymer 176736-72-4 267900-90-3 267900-91-4 848474-99-7, 3,5-Diaminobenzoic acid-5-hydroxyisophthalic acid-m-phenylenediamine copolymer 848475-00-3, 4,4'-Diaminodiphenylmethane-5-hydroxyisophthalic acid-trimellitic anhydride copolymer 849624-58-4, 5-Methylsulfonylaminoisophthalic acid-4,4'-oxydianiline copolymer 849624-62-0 849624-67-5 (photosensitive compns. forming films with good alkali developability, chemical resistance, adhesiveness, and flexibility for wear-resistant lithog. plates)

L44 ANSWER 2 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:355014 HCAPLUS Full-text

DOCUMENT NUMBER: 140:358214

TITLE: Polymer for heat-sensitive lithographic printing plate precursor with good cured chemical resistance

INVENTOR(S): Groenendaal, Bert; Loccufier, Johan; Van Aert, Huub; Van Damme, Marc

PATENT ASSIGNEE(S): Agfa-Gevaert, Belg.

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035686	A2	20040429	WO 2003-EP50633	20030918
WO 2004035686	A3	20041021		<--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,			

BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

AU 2003274112	A1	20040504	AU 2003-274112	20030918
<--				
EP 1554346	A2	20050720	EP 2003-758095	20030918
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1688657	A	20051026	CN 2003-824213	20030918
<--				
JP 2006503143	T	20060126	JP 2004-544290	20030918
<--				
US 2006144269	A1	20060706	US 2005-530992	20050916
<--				
PRIORITY APPLN. INFO.:			EP 2002-102444	A 20021015
<--				
			US 2002-420907P	P 20021024
<--				
			WO 2003-EP50633	W 20030918
<--				

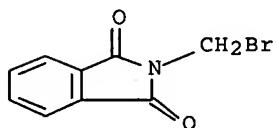
ED Entered STN: 30 Apr 2004

AB A polymer for a heat-sensitive lithog. printing plate precursor is disclosed wherein the polymer comprises a phenolic monomeric unit wherein the H atom of the hydroxy group of the Ph group of the phenolic monomeric unit is replaced by a group comprising a N-imide group and wherein the substitution of the polymer increases the chemical resistance of the coating of the printing plate precursor. Thus, reacting N-(bromomethyl)phthalimide with Alnovol SPN 452 (novolak polymer) gave a modified resin useful for lithog. printing plate precursor.

IT 5332-26-3DP, N-(Bromomethyl)phthalimide, reaction products with novolak resins 17564-64-6DP, N-(Chloromethyl)phthalimide, reaction products with novolak resins (polymer for heat-sensitive lithog. printing plate precursor with good cured chemical resistance)

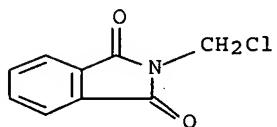
RN 5332-26-3 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(bromomethyl)- (CA INDEX NAME)



RN 17564-64-6 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(chloromethyl)- (CA INDEX NAME)



IC ICM C08L061-14  
 CC 37-3 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38, 74  
 ST lithog printing plate precursor prepн heat sensitive  
 phenolic novolak  
 IT Phenolic resins, properties  
     (novolak, modified; polymer for heat-sensitive lithog.  
     printing plate precursor with good cured chemical resistance  
     )  
 IT Positive photoresists  
     Printing plates  
     (polymer for heat-sensitive lithog. printing plate  
     precursor with good cured chemical resistance)  
 IT 5332-26-3DP, N-(Bromomethyl)phthalimide, reaction products  
 with novolak resins 17564-64-6DP, N-  
 (Chloromethyl)phthalimide, reaction products with novolak resins  
 100346-90-5DP, Alnovol SPN 452, imide-modified products  
 681430-18-2DP, Alnovol HPN 100, imide-modified products  
     (polymer for heat-sensitive lithog. printing plate  
     precursor with good cured chemical resistance)

L44 ANSWER 3 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:354986 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:358210  
 TITLE: Polymer for heat-sensitive lithographic  
       printing plate precursor with good cured chemical  
       resistance  
 INVENTOR(S): Loccufier, Johan; Groenendaal, Bert; Van Aert,  
                   Huub; Van Damme, Marc  
 PATENT ASSIGNEE(S): Agfa-Gevaert, Belg.  
 SOURCE: PCT Int. Appl., 55 pp.  
       CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035645	A1	20040429	WO 2003-EP50657	20030925 ---
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003278180	A1	20040504	AU 2003-278180	20030925 ---
EP 1554324	A1	20050720	EP 2003-769495	20030925 ---

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 CN 1688625 A 20051026 CN 2003-824214 20030925  
 <--  
 JP 2006503144 T 20060126 JP 2004-544292 20030925  
 <--  
 US 2006019191 A1 20060126 US 2005-531629 20050701  
 <--  
 PRIORITY APPLN. INFO.: EP 2002-102445 A 20021015  
 <--  
 US 2002-421540P P 20021025  
 <--  
 WO 2003-EP50657 W 20030925  
 <--

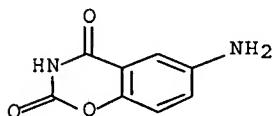
ED Entered STN: 30 Apr 2004

AB A polymer for a heat-sensitive lithog. printing plate precursor is disclosed wherein the polymer comprises a phenolic monomeric unit of which the Ph group is substituted by a group A characterized in that the group A comprises an imide or thioimide group and wherein the modification of the polymer increases the chemical resistance of the coating of the printing plate precursor. Thus, reacting a SO<sub>2</sub>Cl<sub>2</sub>-activated mercaptoaminothiadiazole succinimide with Alnovol SPN 452 (novolak resin) gave a modified product useful for printing plate precursor.

IT 4297-75-0DP, reaction products with novolaks  
 20871-03-8DP, reaction products with novolaks  
 (polymer for heat-sensitive lithog. printing plate  
 precursor with good cured chemical resistance)

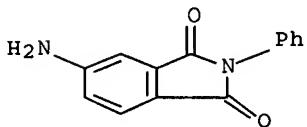
RN 4297-75-0 HCPLUS

CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-amino- (7CI, 8CI, 9CI) (CA INDEX  
 NAME)



RN 20871-03-8 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-amino-2-phenyl- (9CI) (CA INDEX NAME)



IC ICM C08G008-28

ICS C08L061-14; G03F007-105

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 74

ST lithog printing plate manuf heat sensitive modified novolak  
 resin

IT Phenolic resins, properties  
 (novolak, modified; polymer for heat-sensitive lithog.  
 printing plate precursor with good cured chemical resistance  
 )  
 IT Positive photoresists  
 Printing plates  
 (polymer for heat-sensitive lithog. printing plate  
 precursor with good cured chemical resistance)  
 IT 4297-75-0DP, reaction products with novolaks  
 20871-03-8DP, reaction products with novolaks 100346-90-5P,  
 Alnovol SPN 452 681430-23-9DP, reaction products with novolaks  
 681430-24-0DP, reaction products with novolaks  
 (polymer for heat-sensitive lithog. printing plate  
 precursor with good cured chemical resistance)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L44 ANSWER 4 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:709844 HCPLUS Full-text  
 DOCUMENT NUMBER: 135:249505  
 TITLE: Positive-working presensitized plate useful for  
 preparing a lithographic printing plate  
 INVENTOR(S): Fujita, Kazuo; Tan, Shiro; Nagashima, Akira  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 34 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

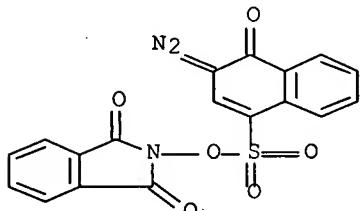
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1136886	A1	20010926	EP 2001-106429	20010322
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001264979	A	20010928	JP 2000-79611	20000322
<--				
CN 1314617	A	20010926	CN 2001-103858	20010314
<--				
US 2001041299	A1	20011115	US 2001-811425	20010320
<--				
US 6517987	B2	20030211		
PRIORITY APPLN. INFO.:			JP 2000-79611	A 20000322
<--				

ED Entered STN: 28 Sep 2001  
 AB The present invention relates to a pos.-working presensitized plate useful for  
 preparing a lithog. printing plate comprising a pos.-working photosensitive  
 composition comprising at least one ester of 1,2-naphthoquinone-2-diazide-5-  
 sulfonic acid, at least one ester of 1,2-naphthoquinone-2-diazide-4-sulfonic  
 acid, and at least one polymer which is insol. in water and soluble in an  
 aqueous alkaline solution and which comprises at least one group or bond  
 selected from sulfonamide group, urea bond or urethane bond. A lithog.  
 printing plate prepared from the presensitized plate of the present invention  
 shows improvement of chemical-resistance and printing durability, and good  
 sensitivity, coupling property, adaptability to ball-point pen, shelf  
 stability, and stability of sensitivity with time after exposure.  
 IT 84938-98-7 95965-97-2

(pos.-working presensitized plate useful for preparing lithog  
printing plate)

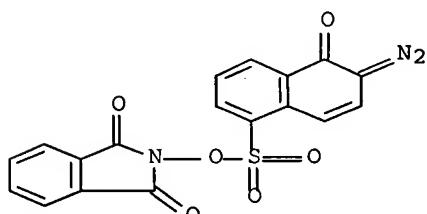
RN 84938-98-7 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



RN 95965-97-2 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[6-diazo-5,6-dihydro-5-oxo-1-naphthalenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



IC ICM G03F007-022

ICS G03F007-023

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog printing plate presensitized pos working resin

IT Lithographic plates

(presensitized, pos.-working; pos.-working presensitized plate useful for preparing lithog. printing plate)

IT 29763-27-7P 141634-00-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methylmethacrylate copolymer  
184348-65-0P 263716-62-7P 326820-92-2P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-2-hydroxyethyl methacrylate-methylmethacrylate copolymer 355113-67-6P 360787-05-9P  
360787-06-0P 360787-07-1P

(pos.-working presensitized plate useful for preparing lithog. printing plate)

IT 123-30-8D, 4-Aminophenol, reaction products with xylenediisocyanate, ester with naphthoquinonediazide sulfonic acid 3634-83-1D, reaction products with aminophenol, ester with naphthoquinonediazide sulfonic acid 20546-03-6D, 1,2-Naphthoquinone-2-diazide-5-sulfonic acid, ester with reaction products of aminophenol and xylenediisocyanate 20680-48-2D, 1,2-Naphthoquinone-2-diazide-4-sulfonic acid, ester with reaction products of aminophenol and xylenediisocyanate 40377-69-3, 1,2-Naphthoquinone-2-diazide-5-sulfonic acid 2,3,4-trihydroxybenzophenone ester 58640-48-5, Acetone-pyrogallol

copolymer 1,2-naphthoquinone-2-diazide-4-sulfonate 68584-99-6,  
 Acetone-pyrogallol copolymer 1,2-naphthoquinone-2-diazide-5-sulfonate  
 84938-98-7 95965-97-2 121870-66-4 125857-81-0  
 133757-73-0D, Burnock DN-980S, reaction products with aminophenol,  
 ester with naphthoquininediazide sulfonic acid 360791-61-3  
 (pos.-working presensitized plate useful for preparing lithog  
 . printing plate)

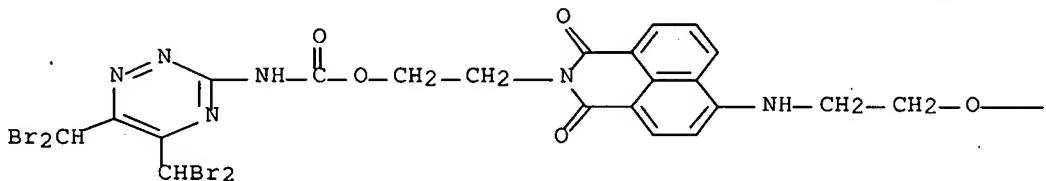
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

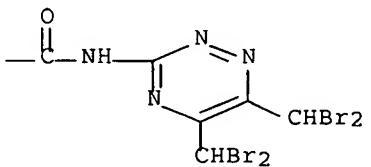
L44 ANSWER 5 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:705356 HCPLUS Full-text  
 DOCUMENT NUMBER: 133:303540  
 TITLE: Light-sensitive photoresist composition  
 INVENTOR(S): Matsuura, Mitsunobu; Miura, Norio; Hattori, Ryoji;  
 Hirai, Katsura  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000275827	A	20001006	JP 1999-85872	19990329
<--				
PRIORITY APPLN. INFO.:			JP 1999-85872	19990329
<--				

ED Entered STN: 06 Oct 2000  
 AB The invention relates to a light-sensitive photoresist composition containing  
 a 1,2,4-triazine compound, wherein the composition is suitable for use in a  
 lithog. plate making and a semiconductor device fabrication. The composition  
 shows the high sensitivity and the excellent storageability.  
 IT 300848-45-7P  
 (1,2,4-triazine in light-sensitive photoresist composition)  
 RN 300848-45-7 HCPLUS  
 CN Carbamic acid, [5,6-bis(dibromomethyl)-1,2,4-triazin-3-yl]-,  
 2-[6-[[2-[[[5,6-bis(dibromomethyl)-1,2,4-triazin-3-  
 yl]amino]carbonyl]oxy]ethyl]amino]-1,3-dioxo-1H-benz[de]isoquinolin-  
 2(3H)-yl]ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A





IC ICM G03F007-004  
 ICS G03F007-00; G03F007-09; G03F007-32  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST light sensitive photoresist compn triazine  
 IT Light-sensitive materials  
     Lithographic plates  
     Photoresists  
     Semiconductor device fabrication  
         (light-sensitive photoresist composition)  
 IT 94-09-7 110-78-1, Propylisocyanate 128-09-6, Succinic N-Chloroimide 141-82-2, Propanedioic acid, reactions 7719-09-7, Thionyl chloride 10025-87-3, Phosphoric trichloride 24372-46-1 31947-33-8 94398-25-1 300833-18-5  
         (1,2,4-triazine in light-sensitive photoresist composition)  
 IT 92520-33-7P 126542-40-3P 162316-21-4P 300833-12-9P  
     300833-13-0P 300833-14-1P 300833-15-2P 300833-16-3P  
     300833-17-4P  
         (1,2,4-triazine in light-sensitive photoresist composition)  
 IT 300833-19-6P 300833-20-9P 300833-21-0P 300833-22-1P  
     300833-23-2P 300833-24-3P 300833-25-4P 300833-26-5P  
     300833-27-6P 300848-45-7P  
         (1,2,4-triazine in light-sensitive photoresist composition)

L44 ANSWER 6 OF 40 HCPLUS COPYRIGHT 2007 ACS on STM  
 ACCESSION NUMBER: 1999:392975 HCPLUS Full-text  
 DOCUMENT NUMBER: 131:37797  
 TITLE: Planographic printing plate precursor and method for producing planographic plate using same  
 INVENTOR(S): Oohashi, Hidekazu; Kawamura, Koichi; Sorori, Tadahiro; Yagihara, Morio; Yamasaki, Sumiaki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 57 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 922570	A2	19990616	EP 1998-123079	19981210

&lt;--

EP 922570	A3	19991124
EP 922570	B1	20040929

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

JP 11174685	A	19990702	JP 1997-340358 <--	19971210
JP 3828259	B2	20061004		
JP 11180062	A	19990706	JP 1997-355798 <--	19971224
JP 11240272	A	19990907	JP 1998-45635 <--	19980226
US 6153352	A	20001128	US 1998-207682 <--	19981209
US 6379863	B1	20020430	US 2000-620899 <--	20000720
PRIORITY APPLN. INFO.:			JP 1997-340358 <--	A 19971210
			JP 1997-355798 <--	A 19971224
			JP 1998-45635 <--	A 19980226
			US 1998-207682 <--	A1 19981209

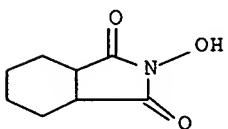
ED Entered STN: 28 Jun 1999

AB A planog. printing plate precursor which can be written by a heat-mode exposure of low energy, has excellent strength in image portions and blemishing **resistance**, can be developed with water or installed in a printing machine as it is for conducting printing without requiring specific treatment such as wet developing treatment, rubbing, and the like after writing of an image and a method for producing the same are provided. The planog. printing plate precursor of the present invention is obtained by laminating on a substrate having a hydrophilic surface a layer composed of a hydrophobic polymer which is made hydrophilic by heating and either a layer composed of a hydrophilic polymer compound having in the side chain at least one of alkylene oxide groups or functional groups selected from -COOR, -COOM, -SOR, -SO<sub>2</sub>R, -SO<sub>3</sub>R, -SOM, -SO<sub>2</sub>M, -SO<sub>3</sub>M, -OH, -NR<sub>1</sub>R<sub>2</sub> (R = H, an alkyl group, or an aryl group; M = a metal atom; R<sub>1</sub>, R<sub>2</sub> = H, an alkyl group, or an aryl group) or a layer of which exposed portions can be removed by a heat-mode exposure.

IT 5426-10-8  
(reaction in preparing monomers for preparing heat-sensitive polymers for planog. printing plate preparation)

RN 5426-10-8 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, hexahydro-2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM B41C001-10  
ICS B41M005-36

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Printing plates**  
(planog.; thermosensitive materials containing hydrophobic polymers convertible to hydrophilic polymers upon heating for preparation of)

IT **Lithographic plates**  
(thermosensitive materials containing hydrophobic polymers convertible

to hydrophilic polymers upon heating for preparation of)  
 IT 75-89-8, 2,2,2-Trifluoroethyl alcohol 79-41-4, Methacrylic acid,  
 reactions 108-93-0, Cyclohexyl alcohol, reactions 121-14-2,  
 2,4-Dinitrotoluene 2633-67-2, 4-Vinylbenzenesulfonyl chloride  
 5426-10-8 25512-65-6, Dihydropyran  
 (reaction in preparing monomers for preparing heat-sensitive polymers for  
 planog. printing plate preparation)

L44 ANSWER 7 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:297369 HCPLUS Full-text  
 DOCUMENT NUMBER: 130:359307  
 TITLE: Pattern formation  
 INVENTOR(S): McCullough, Christopher David; Ray, Kevin Barry;  
 Monk, Alan Stanley Victor; Riches, John David;  
 Kitson, Anthony Paul; Parsons, Gareth Rhodri;  
 Riley, David Stephen; Bennett, Peter Andrew Reath;  
 Hoare, Richard David; Mulligan, James Laurence;  
 Hearson, John Andrew; Smith, Carole-Anne; Bayes,  
 Stuart; Spowage, Mark John  
 PATENT ASSIGNEE(S): Horsell Graphic Industries Limited, UK  
 SOURCE: PCT Int. Appl., 101 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9921725	A1	19990506	WO 1998-GB3189	19981026 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9895528	A	19990517	AU 1998-95528	19981026 <--
EP 1024963	A1	20000809	EP 1998-949154	19981026 <--
EP 1024963	B1	20040303		
R: DE, FR, GB, IT, NL				
BR 9813230	A	20000829	BR 1998-13230	19981026 <--
JP 2001521197	T	20011106	JP 2000-517852	19981026 <--
DE 29824693	U1	20020404	DE 1998-29824693	19981026 <--
EP 1398170	A2	20040317	EP 2003-25898	19981026 <--
EP 1398170	A3	20040519		
R: DE, FR, GB, IT, NL				
EP 1400369	A2	20040324	EP 2003-25899	19981026 <--
EP 1400369	A3	20040519		
R: DE, FR, GB, IT, NL				

ZA 9809813	A	19990519	ZA 1998-9813	19981028
			<--	
US 6558869	B1	20030506	US 2000-558110	20000425
			<--	
PRIORITY APPLN. INFO.:			GB 1997-22862	A 19971029
			<--	
			EP 1998-949154	A 19981026
			<--	
			WO 1998-GB3189	W 19981026
			<--	

OTHER SOURCE(S): MARPAT 130:359307

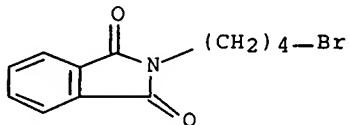
ED Entered STN: 14 May 1999

AB A precursor, for example for a lithog. plate, has a coating of a heat-sensitive composition, the solubility of which in an aqueous developer is arranged to increase in heated areas. The composition contains a compound which increases the resistance of non-heated areas of the heat-sensitive composition to dissoln. in an aqueous developer, the compound being selected from the groups comprising compds. which include a poly(alkylene oxide) unit, siloxanes, and esters, ethers, and amides of polyhydric alcs.

IT 5394-18-3, N-(4-Bromobutyl)phthalimide  
(thermosensitive materials for resist pattern formation  
and lithog. plate preparation containing)

RN 5394-18-3 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(4-bromobutyl)- (CA INDEX NAME)



IC ICM B41M005-36  
ICS G03F007-004; B41C001-10; G03F007-075; G03F007-022

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 76

ST thermal imaging compn lithog plate prep; resist pattern thermosensitive compn polyalkylene oxide

IT Phenolic resins, uses  
(Bakelite LG 724; thermosensitive materials for resist pattern formation and lithog. plate preparation containing)

IT Alcohols, uses  
(C16-18, ethoxylated, Surfacare T 20; thermosensitive materials for resist pattern formation and lithog. plate preparation containing)

IT Carbon black, uses  
(FW 2; thermosensitive materials for resist pattern formation and lithog. plate preparation containing)

IT Polysiloxanes, uses  
(alkyl Me, Tegopren 3110; thermosensitive materials for resist pattern formation and lithog. plate preparation containing)

IT Thermal printing materials  
(containing poly(alkylene oxide) and siloxanes for preparation of lithog. plates and printed circuits)

IT Castor oil

(ethoxylated; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT Recording materials  
 (thermal; containing poly(alkylene oxide) and siloxanes for preparation of  
 lithog. plates and printed circuits)

IT **Resists**  
 (thermosensitive materials containing poly(alkylene oxide) and  
 siloxanes as)

IT **Lithographic plates**  
 Printed circuits  
 (thermosensitive materials containing poly(alkylene oxide) and  
 siloxanes for preparation of)

IT **Polyoxyalkylenes, uses**  
 (thermosensitive materials for **resist** pattern formation  
 and lithog. plate preparation containing)

IT 27215-38-9, Aldo MLD-K-FG  
 (Aldo MLD-K-FG; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 9039-25-2, Cresol-formaldehyde-phenol copolymer  
 (Bakelite LB 6564; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 9016-83-5, Cresol-formaldehyde copolymer  
 (Bakelite LB 744; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 9003-35-4  
 (Bakelite LG 724; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 9004-95-9, Polyoxyethylene cetyl ether  
 (Cirrasol ALN-WF; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 212964-63-1  
 (KF 654B-PINA; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 106392-12-5  
 (Monolan 8000E80; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 9005-67-8, Polyoxyethylene sorbitan monostearate  
 (Montanox 60DF; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 134127-48-3  
 (SDB 7047; thermosensitive materials for **resist** pattern  
 formation and lithog. plate preparation containing)

IT 26658-19-5, Sorbax STS  
 (Sorbax STS; thermosensitive materials for **resist** pattern  
 formation and lithog. plate preparation containing)

IT 9005-71-4, Polyoxyethylene sorbitan tristearate  
 (Tween 65; thermosensitive materials for **resist** pattern  
 formation and lithog. plate preparation containing)

IT 548-62-9  
 (crystal violet; thermosensitive materials for **resist**  
 pattern formation and lithog. plate preparation containing)

IT 84-11-7, Phenanthrenequinone 90-47-1, Xanthone 112-60-7,  
 Tetraethylene glycol 119-61-9, Benzophenone, uses 487-26-3,  
 Flavanone 494-38-2, C.I. Solvent Orange 15 525-82-6, Flavone  
 604-59-1,  $\alpha$ -Naphthoflavone 1338-39-2, Sorbitan monolaurate  
 1801-42-9 5394-18-3, N-(4-Bromobutyl)phthalimide  
 6051-87-2,  $\beta$ -Naphthoflavone 9002-92-0 9003-11-6, Genapol PF80  
 9004-96-0, Polyethylene glycol monooleate 9004-98-2 9005-00-9,  
 Polyoxyethylene stearyl ether 9005-08-7, Polyethylene glycol  
 distearate 9005-64-5, Polyoxyethylene sorbitan monolaurate

9005-65-6, Polyoxyethylene sorbitan monooleate 9005-66-7,  
 Polyoxyethylene sorbitan monopalmitate 9005-70-3, Polyoxyethylene  
 sorbitan trioleate 9011-27-2, Polyoxyethylene sorbitol hexalaurate  
 9011-29-4, Polyoxyethylene sorbitol hexastearate 9016-45-9  
 9036-19-5, Polyoxyethylene octylphenyl ether 24938-91-8, Renex 30  
 25322-68-3 42557-11-9, Silikophen P50X 53858-96-1,  
 Polyoxypropylene sorbitol monolaurate 56619-61-5, Polyoxyethylene  
 sorbitol tetrastearate 57171-56-9, Polyoxyethylene sorbitol  
 hexaoleate 58109-40-3, Diphenyliodonium hexafluorophosphate  
 59006-81-4, Formaldehyde-polyoxyethylene nonylphenyl ether copolymer  
 63089-86-1, Polyoxyethylene sorbitol tetraoleate 63530-16-5,  
 Polyoxyethylene sorbitol dodecanoate 66676-90-2,  
 Polyoxyethylene-polyoxypropylene sorbitol monooleate 66686-72-4,  
 Polyoxyethylene sorbitol monolaurate 69070-98-0, Polyoxyethylene  
 sorbitan tetraoleate 69402-36-4, Polyoxyethylene-polyoxypropylene  
 sorbitol tetraoleate 72642-93-4 77110-48-6, Polyoxypropylene  
 sorbitol hexastearate 84285-69-8, Polyoxyethylene sorbitol  
 tetralaurate 94700-75-1, Marlowet OFA 125005-85-8, Rewophat E1027  
 127092-92-6, Polyoxyethylene sorbitol hexastearyl ether 127106-37-0,  
 Polyoxypropylene sorbitol tetraoleate 127106-38-1, Polyoxyethylene  
 sorbitol tetrastearyl ether 127106-39-2, Polyoxyethylene sorbitol  
 tetraoleyl ether 127106-40-5, Polyoxyethylene sorbitol monolauryl  
 ether 127106-41-6, Polyoxyethylene sorbitol monooleyl ether  
 127121-02-2, Polyoxyethylene-polyoxypropylene sorbitol hexastearate  
 127121-04-4, Polyoxyethylene-polyoxypropylene sorbitol tetrastearate  
 128906-06-9, Polyoxypropylene sorbitol hexaoleate 152588-42-6,  
 4-Hydroxystyrene-4-hydroxy-3-hydroxymethylstyrene copolymer  
 220970-44-5, Uravar FN6 224627-96-7, LB 6564 Tosylate 224636-21-9,  
 Metolat FC 388

(thermosensitive materials for resist pattern formation  
 and lithog. plate preparation containing)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L44 ANSWER 8 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1998:55934 HCAPLUS Full-text  
 DOCUMENT NUMBER: 128:174175  
 TITLE: Negative-working IR-sensitive image recording  
 material for lithographic printing plate  
 INVENTOR(S): Aoshima, Keitaro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10016423	A	19980120	JP 1996-171307	19960701 ---
JP 3636827	B2	20050406		
PRIORITY APPLN. INFO.:			JP 1996-171307	19960701 ---

ED Entered STN: 30 Jan 1998

AB The recording material comprises (A)  $\geq 1$  polymer having hydroxyaryl groups in  
 side chains, (B) a thermal crosslinking agent, (C) an acid generator, and (D)  
 an IR absorber. Preferably, the crosslinking agent is a phenol derivative

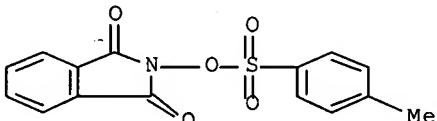
having hydroxymethyl or alkoxyethyl connecting to  $\geq 2$  benzene rings, and the acid generator decomp. at  $\geq 100^\circ$ , and the IR absorber absorbs light at 720-1200 nm. The recording material is useful for direct platemaking by using IR laser. The recording material shows high film strength and printability.

IT 56530-39-3 175878-37-2 202817-62-7

(acid generator; neg.-working IR-sensitive image recording material for lithog. printing plate with high printability)

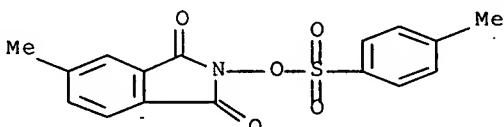
RN 56530-39-3 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[[4-methylphenyl)sulfonyl]oxy]- (CA INDEX NAME)



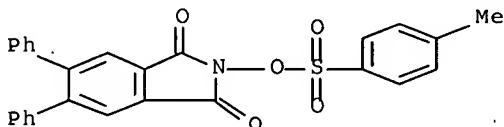
RN 175878-37-2 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-methyl-2-[[[4-methylphenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



RN 202817-62-7 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[[4-methylphenyl)sulfonyl]oxy]-5,6-diphenyl- (9CI) (CA INDEX NAME)



IC ICM B41N001-14

ICS B41C001-055; G03F007-00; G03F007-004; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 25, 38

ST IR sensitive recording lithog printing plate; phenol deriv crosslinking agent lithog printing; acid generator lithog printing plate; hydroxyaryl polymer IR sensitive resist lithog

IT Crosslinking agents

Lithographic plates  
 (neg.-working IR-sensitive image recording material for  
 lithog. printing plate with high printability)

IT Phenolic resins, uses  
 (neg.-working IR-sensitive image recording material for  
 lithog. printing plate with high printability)

IT Polyvinyl acetals  
 (neg.-working IR-sensitive image recording material for  
 lithog. printing plate with high printability)

IT Resists  
 (neg.-working, IR-sensitive; neg.-working IR-sensitive image  
 recording material for lithog. printing plate with high  
 printability)

IT 22371-56-8, NK 3508  
 (IR absorber; neg.-working IR-sensitive image recording material  
 for lithog. printing plate with high printability)

IT 6293-66-9, Diphenyliodonium p-toluenesulfonate 10409-06-0  
 22040-25-1 54769-57-2 56530-39-3 130536-25-3  
 130558-04-2 175878-37-2 202817-62-7  
 (acid generator; neg.-working IR-sensitive image recording material  
 for lithog. printing plate with high printability)

IT 531-18-0, Hexamethylolmelamine 25085-75-0, Bisphenol A-formaldehyde  
 copolymer  
 (crosslinking agent; neg.-working IR-sensitive image recording  
 material for lithog. printing plate with high  
 printability)

IT 161679-94-3P 161679-95-4P 161679-98-7P 185502-11-8P  
 185502-14-1P 185502-15-2P 197087-73-3P 197087-74-4P  
 (crosslinking agent; neg.-working IR-sensitive image recording  
 material for lithog. printing plate with high  
 printability)

IT 162846-57-3P  
 (crosslinking agent; neg.-working IR-sensitive image recording  
 material for lithog. printing plate with high  
 printability)

IT 173786-82-8DP, hydrolyzed 202817-57-0P 202817-58-1P 202817-59-2P  
 202817-61-6P  
 (neg.-working IR-sensitive image recording material for  
 lithog. printing plate with high printability)

IT 50-00-0, Formaldehyde, reactions 67-56-1, Methanol, reactions  
 110726-28-8, Trisp PA  
 (neg.-working IR-sensitive image recording material for  
 lithog. printing plate with high printability)

L44 ANSWER 9 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:794034 HCPLUS Full-text  
 DOCUMENT NUMBER: 128:121777  
 TITLE: Photosensitive composition containing phthalimide  
 compound  
 INVENTOR(S): Naito, Kazuhiko  
 PATENT ASSIGNEE(S): Okamoto Kagaku Kogyo K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

JP 09319081

A

19971212

JP 1996-131459

19960527

&lt;--

PRIORITY APPLN. INFO.:

JP 1996-131459

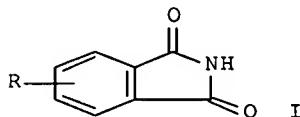
19960527

&lt;--

OTHER SOURCE(S): MARPAT 128:121777

ED Entered STN: 19 Dec 1997

GI

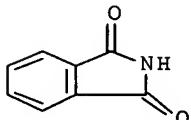


AB The title composition contains an o-quinonediazide compound, an alkali-soluble resin, and a phthalimide compound I (R = H, alkyl, aryl, halo, NO<sub>2</sub>, amino). The composition shows high photosensitivity, developability, and chemical resistance.

IT 85-41-6, Phthalimide 7147-90-2, 4-Chlorophthalimide  
40314-06-5, 4-Methylphthalimide  
(photosensitive composition containing phthalimide compound for presensitized lithog. plate)

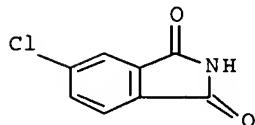
RN 85-41-6 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione (CA INDEX NAME)



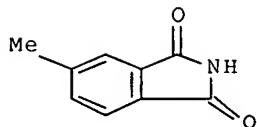
RN 7147-90-2 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-chloro- (9CI) (CA INDEX NAME)



RN 40314-06-5 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-methyl- (CA INDEX NAME)



IC ICM G03F007-022  
 ICS C09K009-02; G03F007-004  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST presensitized lithog plate phthalimide compd; photosensitive compn quinonediazide compd  
 IT Phenolic resins, uses  
     (novolak; photosensitive composition containing phthalimide compound for presensitized lithog. plate)  
 IT Lithographic plates  
     (presensitized; photosensitive composition containing phthalimide compound for presensitized lithog. plate)  
 for  
 IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer  
     (PFS 2803; photosensitive composition containing phthalimide compound for presensitized lithog. plate)  
 IT 68584-99-6, Acetone-pyrogallol copolymer naphthoquinone-1,2-diazido-5-sulfonate 194150-36-2, Acrylonitrile- N-(p-aminosulfonylphenyl)methacrylamide- N-(p-carboxyphenyl)maleimide copolymer  
     (photosensitive composition containing phthalimide compound for presensitized lithog. plate)  
 IT 85-41-6, Phthalimide 7147-90-2, 4-Chlorophthalimide  
     40314-06-5, 4-Methylphthalimide  
     (photosensitive composition containing phthalimide compound for presensitized lithog. plate)

L44 ANSWER 10 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:720180 HCPLUS Full-text  
 DOCUMENT NUMBER: 128:28627  
 TITLE: Positive-working photosensitive composition  
 INVENTOR(S): Kodama, Kunihiko; Aoai, Toshiaki; Uenishi, Kazuya  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 83 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 803775	A1	19971029	EP 1997-106841	19970424 ---
EP 803775 R: BE, DE, GB	B1	20020807		
TW 482943	B	20020411	TW 1997-86105379	19970424 ---
JP 11002901	A	19990106	JP 1997-109526	19970425

JP 3907135  
US 5891603

B2 20070418  
A 19990406

US 1997-840629

19970425

PRIORITY APPLN. INFO.:

JP 1996-105635

Λ 19960425

JTB 1996-171327

A 19960701

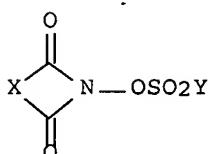
<--

卷之三

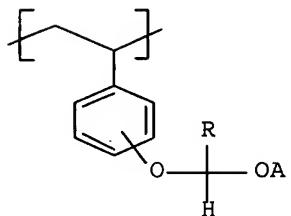
OTHER SOURCE(S) : MARPAT 128:28627

ED      Entered STN: 14 Nov 1997

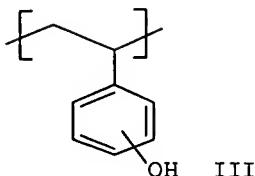
GI



I



II



III

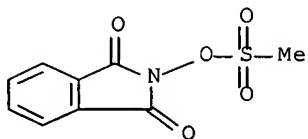
AB Provided is a pos.-working photosensitive composition useful for lithog. plate and semiconductor device manufacture comprising (a) a compound represented by the formula I which generates a sulfonic acid by irradiation with active rays and (b) a resin comprising constitutional repeating units of the formulas II or III and having groups which enable an increase of the solubility in an alkali developer through their decomposition due to the action of an acid wherein Y represents an alkyl group, an aralkyl group, or a specific Ph, naphthyl, or anthracenyl group and Y may be bonded to the other imidesulfonate compound residue, X represents an alkylene group, an alkenylene group, an arylene group, or an aralkylene group and X may be bonded to the other imidesulfonate compound residue, R represents a hydrogen atom, an alkyl group, or an aralkyl group, and A represents an alkyl group or an aralkyl group and A may combine with R to complete a 5- or 6-membered ring.

IT 57212-70-1 67695-82-3 159300-88-6  
199432-74-1 199432-75-2 199432-76-3  
199432-77-4 199432-79-6

(photoacid generator for pos. photoresists)

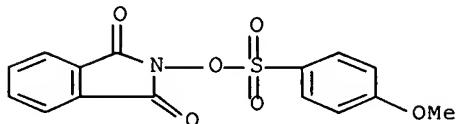
RN 57212-70-1 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(methylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



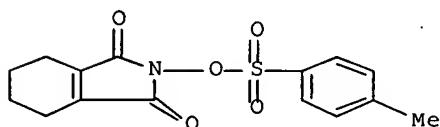
RN 67695-82-3 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-methoxyphenyl)sulfonyloxy]- (9CI) (CA INDEX NAME)



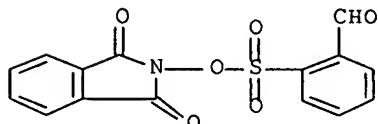
RN 159300-88-6 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrahydro-2-[(4-methylphenyl)sulfonyloxy]- (9CI) (CA INDEX NAME)



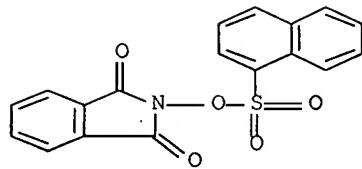
RN 199432-74-1 HCAPLUS

CN Benzaldehyde, 2-[(1,3-dihydro-1,3-dioxo-2H-isindol-2-yl)oxy]sulfonyl- (9CI) (CA INDEX NAME)

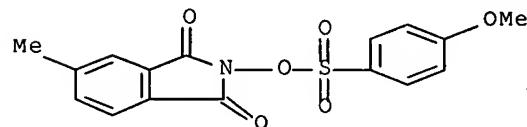


RN 199432-75-2 HCAPLUS

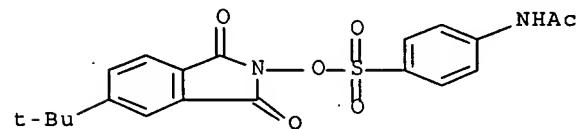
CN 1H-Isoindole-1,3(2H)-dione, 2-[(1-naphthalenylsulfonyloxy)- (9CI) (CA INDEX NAME)



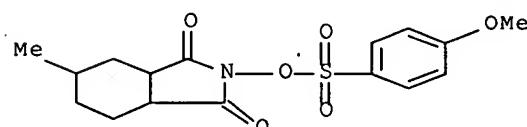
RN 199432-76-3 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-methoxyphenyl)sulfonyl]oxy]-5-methyl- (9CI) (CA INDEX NAME)



RN 199432-77-4 HCAPLUS  
 CN Acetamide, N-[4-[[[5-(1,1-dimethylethyl)-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl]oxy]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

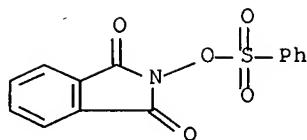


RN 199432-79-6 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, hexahydro-2-[(4-methoxyphenyl)sulfonyl]oxy]-5-methyl- (9CI) (CA INDEX NAME)



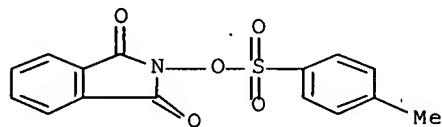
IT 19361-97-8P 56530-39-3P 199432-78-5P  
 (preparation and use as photoacid generator for pos. photoresists)

RN 19361-97-8 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-[(phenylsulfonyl)oxy]- (CA INDEX NAME)



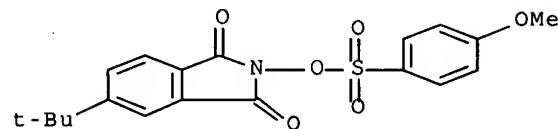
RN 56530-39-3 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-methylphenyl)sulfonyl]oxy- (CA INDEX NAME)



RN 199432-78-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-(1,1-dimethylethyl)-2-[(4-methoxyphenyl)sulfonyl]oxy- (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos photoresist chem amplification oxime sulfonate

IT Positive photoresists  
(chemical amplification; containing oxime sulfonate photoacid generators and novolak resins)

IT Integrated circuits

Lithographic plates

(pos. photoimaging compns. containing oxime sulfonate photoacid generators and novolak resins for manufacture of)

IT Photoimaging materials

(pos.; containing oxime sulfonate photoacid generators and novolak resins for manufacture of lithog. plates)

IT 57212-70-1 67695-82-3 159300-88-6

199432-74-1 199432-75-2 199432-76-3

199432-77-4 199432-79-6 199432-80-9

(photoacid generator for pos. photoresists)

IT 125325-82-8, p-Hydroxystyrene-p-(2-tetrahydropyranloxy)styrene copolymer

(pos. photoresists containing oxime sulfonate photoacid generators and)

IT 153698-63-6P 153698-69-2P 153840-05-2P 199432-83-2P  
(preparation and use as dissoln. inhibitor for pos. photoresists containing oxime sulfonate photoacid generators)

IT 19361-97-8P 56530-39-3P 199432-78-5P  
(preparation and use as photoacid generator for pos. photoresists)

IT 129674-22-2P, p-(tert-Butoxycarbonyloxy)styrene-p-hydroxystyrene copolymer 158593-28-3DP, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer, crosslinked 158593-28-3P, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer 196709-91-8DP, p-(1-tert-Butoxyethoxy)styrene-p-hydroxystyrene copolymer, crosslinked 196709-91-8P, p-(1-tert-Butoxyethoxy)styrene-p-hydroxystyrene copolymer 199432-81-0P, p-(1-Cyclohexyloxyethoxy)styrene-p-hydroxystyrene copolymer 199432-82-1DP, crosslinked 199432-82-1P, p-Hydroxystyrene-p-(1-isobutoxyethoxy)styrene copolymer  
(preparation and use in pos. photoresists containing oxime sulfonate photoacid generators)

L44 ANSWER 11 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:719619 HCAPLUS Full-text

DOCUMENT NUMBER: 128:28625

TITLE: Positive-working photosensitive composition

INVENTOR(S): Aoai, Toshiaki; Yamanaka, Tsukasa; Uenishi, Kazuya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S., 34 pp., Cont.-in-part of U.S. Ser. No. 525,157, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5683856	A	19971104	US 1996-634529	19960418 <--
JP 08123030	A	19960517	JP 1994-252351	19941018 <--
JP 3317597	B2	20020826		
PRIORITY APPLN. INFO.:			JP 1994-252351	A 19941018 <--
			US 1995-525157	B2 19950908 <--

ED Entered STN: 14 Nov 1997

AB A pos.-working photosensitive composition is disclosed, which comprises: (a) a resin which is insol. in water but soluble in an alkaline aqueous solution; (b) a compound which generates an acid upon irradiation with an active light or radiation; (c) a low-mol.-weight acid-decomposable dissoln.-inhibitive compound having a mol. weight of 3000 or less and containing a group decomposable with an acid, and which increases its solubility in an alkaline developer by the action of an acid; and (d) a resin containing a basic nitrogen atom and having a weight-average mol. weight of 2000 or more. Another pos.-working photosensitive composition is disclosed, which comprises: (1) a compound which generates an acid upon irradiation with active light or radiation; (2) a resin having a group which undergoes decomposition by an acid whereby increasing its solubility in an alkaline developer; and (3) a resin containing a basic nitrogen atom and having a weight-average mol. weight of 2000 or more. The pos.-working photosensitive composition of the present

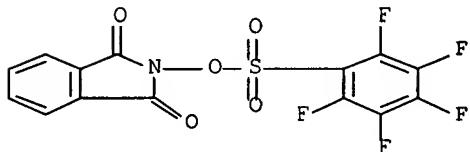
invention can easily and properly inhibit acid diffusion and acid deactivation on the surface thereof with time between the exposure and the heat treatment, keep the dissoln.-inhibiting effect exerted by the dissoln.-inhibitive compound and exhibit a good profile, a high sensitivity, and a high resolving power.

IT 142096-70-6 153698-67-0

(pos.-working photoresist compns. for lithog. plate and integrated circuit manufacture containing)

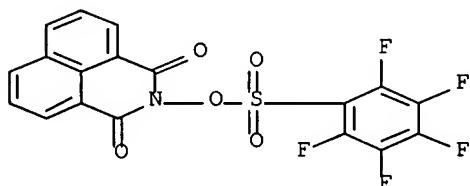
RN 142096-70-6 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[{(pentafluorophenyl)sulfonyl}oxy]- (9CI) (CA INDEX NAME)



RN 153698-67-0 HCAPLUS

CN Benzenesulfonic acid, 2,3,4,5,6-pentafluoro-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)



IC ICM G03C001-492

INCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos photoresist photoacid generator dissoln inhibitor; basic resin pos photoimaging compn

IT Positive photoresists

(containing basic resins and acid-decomposable dissoln.-inhibitive compds.)

IT Integrated circuits

Lithographic plates

(pos. photoimaging materials containing basic resins and acid-decomposable dissoln.-inhibitive compds. for manufacture of)

IT 177786-95-7P 177799-92-7P 199442-71-2P

(pos.-working photoresist compns. for lithog.

plate and integrated circuit manufacture containing)

IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 32335-20-9

66003-76-7 66003-78-9 124737-97-9 124738-06-3 129674-22-2,

tert-Butoxycarbonyloxystyrene-p-hydroxystyrene copolymer

133685-94-6, o-Hydroxystyrene-p-hydroxystyrene copolymer

138089-25-5, 2,2-Bis(tert-butoxycarbonyloxyphenyl)propane

142096-70-6 142952-62-3, tert-Butoxycarbonylmethyloxystyrene-  
p-hydroxystyrene copolymer 149642-75-1 153698-46-5  
153698-67-0 171429-59-7, p-Acetoxyxystyrene-p-hydroxystyrene  
copolymer 176109-33-4 177786-96-8 177786-97-9 177786-98-0  
177787-00-7 177787-02-9 177787-03-0 177799-93-8 177799-95-0  
(pos.-working photoresist compns. for lithog.  
plate and integrated circuit manufature containing)

IT 10445-91-7DP, reaction products with poly(p-hydroxystyrene)  
24979-70-2DP, Poly(p-hydroxystyrene), reaction products with  
4-chloromethylpyridine 27029-76-1P, m-Cresol-p-cresol-formaldehyde  
copolymer 112504-03-7P 114651-28-4P 153698-58-9P 153698-65-8P  
153698-68-1P 153698-69-2P 153698-70-5P 153840-05-2P  
159293-87-5P  
(preparation and use in pos.-working photoresist compns. for  
lithog. plate and integrated circuit manufature)

IT 153233-60-4  
(preparation and use in pos.-working photoresist compns. for  
lithog. plate and integrated circuit manufature)

L44 ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1997:553233 HCAPLUS Full-text  
DOCUMENT NUMBER: 127:212525  
TITLE: Positive-working photosensitive composition  
INVENTOR(S): Aoai, Toshiaki; Uenishi, Kazuya; Fujimori, Toru;  
Yamanaka, Tsukasa  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Eur. Pat. Appl., 85 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 788031	A1	19970806	EP 1997-101827	19970205 <--
EP 788031	B1	20001018		
R: BE, DE, FR, GB				
JP 09211864	A	19970815	JP 1996-19001	19960205 <--
JP 3591672	B2	20041124		
US 6013411	A	20000111	US 1997-794890	19970205 <--
PRIORITY APPLN. INFO.:			JP 1996-19001	A 19960205 <--

ED Entered STN: 30 Aug 1997  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB A pos.-working photosensitive composition useful in production of a lithog. plate or semiconductor device comprises a resin having repeating units represented by the formulas I, II, and III, resp., wherein R1 represents a hydrogen atom or a Me group; R2 represents -C(O)OC(R6) (R7) (R8) or -OR5C(O)OC(R6) (R7) (R8); R3 represents -OC(R6) (R7) (R8), -OSi(R6) (R7) (R8), or -OC(R9) (R10)OR11; R4 represents a hydrogen atom, a halogen atom, an alkyl

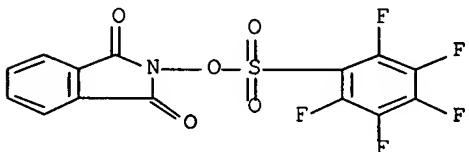
group, an aryl group, an alkoxy group, an acyl group, or an acyloxy group; R5 represents an alkylene group; R6, R7, R8, R10 each independently represents a hydrogen atom, an alkyl group, a cycloalkyl group, or an alkenyl group, provided that at least two among R6, R7, and R8 are groups other than a hydrogen atom; R11 represents an alkyl group or an aryl group; two groups selected from R6, R7, and R8 and two groups selected from R9, R10, and R11, each two groups may be combined to form a ring; and n is an integer from 1 to 3, and a compound which generates an acid with irradiation of an active ray or radiation.

IT 142096-70-6 194712-94-2

(photosensitive acid generator for pos.-working photosensitive compns. for fabrication of lithog. plates and semiconductor devices)

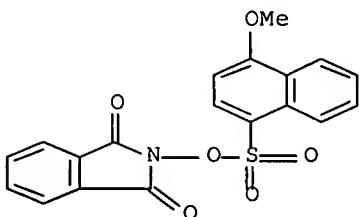
RN 142096-70-6 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[ (pentafluorophenyl)sulfonyl]oxy] - (9CI) (CA INDEX NAME)



RN 194712-94-2 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[ (4-methoxy-1-naphthalenyl)sulfonyl]oxy] - (9CI) (CA INDEX NAME)



IC ICM G03F007-039

ICS G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos photoresist styrene deriv terpolymer

IT Positive photoresists

(containing styrene derivative terpolymers)

IT Integrated circuits

Lithographic plates

Semiconductor devices

(pos.-working photosensitive compns. containing styrene derivative terpolymers for preparation of)

IT 66003-78-9 91222-48-9 142096-70-6 194712-93-1

194712-94-2

(photosensitive acid generator for pos.-working photosensitive compns. for fabrication of lithog. plates and

semiconductor devices)

IT 133685-94-6P, o-Hydroxystyrene-p-hydroxystyrene copolymer  
 153698-58-9P 153698-65-8P 153698-68-1P 153698-70-5P  
 153840-05-2P 159293-87-5P 194536-00-0P  
 (preparation and use as dissoln. inhibitor in pos.-working  
 photosensitive compns. for fabrication of lithog. plates  
 and semiconductor devices)

IT 194712-74-8P 194712-76-0P 194712-78-2P 194712-79-3P  
 194712-80-6P 194712-82-8P 194712-84-0P 194712-87-3P  
 194712-88-4P 194712-89-5P 194712-90-8P  
 (preparation and use in pos.-working photosensitive compns. for  
 fabrication of lithog. plates and semiconductor devices)

L44 ANSWER 13 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:178279 HCPLUS Full-text

DOCUMENT NUMBER: 126:179100

TITLE: Photosensitive composition using specific  
 naphthoquinonediazide compound

INVENTOR(S): Kondo, Shunichi; Abe, Yukio

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

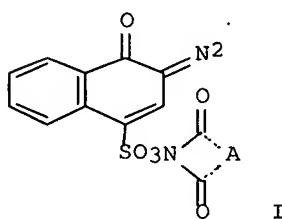
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
JP 08339076	A	19961224	JP 1995-146379	19950613
			<--	
PRIORITY APPLN. INFO.:			JP 1995-146379	19950613
			<--	

OTHER SOURCE(S): MARPAT 126:179100

ED Entered STN: 15 Mar 1997

GI

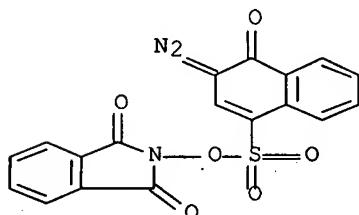


AB The title composition consists of a OH-containing polymer and an o-naphthoquinonediazide compound I [A = (substituted) divalent aliphatic or aromatic residue]. The composition shows high latitude in processing and provides clear neg. images. Thus, a composition containing methacrylic acid-benzyl methacrylate-2-hydroxyethyl methacrylate copolymer and I [A = (CMe<sub>2</sub>)<sub>2</sub>] was coated on an Al support to give a presensitized lithog. plate.

IT 84938-98-7 84938-99-8 84939-00-4  
 (photosensitive composition containing hydroxy polymer and  
 naphthoquinonediazide derivative)

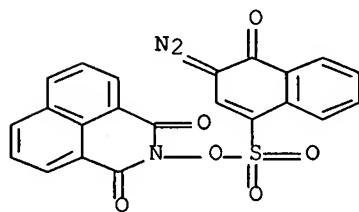
RN 84938-98-7 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl]sulfonyloxy]- (9CI) (CA INDEX NAME)



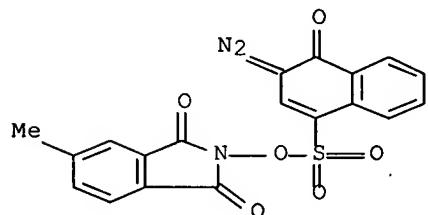
RN 84938-99-8 HCPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[[3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl]sulfonyloxy]- (9CI) (CA INDEX NAME)



RN 84939-00-4 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl]sulfonyloxy]-5-methyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F003-10; G03F007-00; G03F007-022; H01L021-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photosensitive naphthoquinonediazide hydroxy polymer lithog

IT Lithographic plates

Photoresists

(photosensitive composition containing hydroxy polymer and naphthoquinonediazide derivative)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 66747-40-8,

Acrylic acid-2-hydroxyethyl acrylate-methyl methacrylate copolymer  
 84938-94-3 84938-98-7 84938-99-8  
 84939-00-4 141655-30-3, Benzyl methacrylate-2-hydroxyethyl  
 methacrylate-methacrylic acid copolymer 187101-20-8, Benzyl  
 methacrylate-2-hydroxypropyl acrylate-methacrylic acid copolymer  
 187102-37-0 187102-38-1 187102-39-2 187102-41-6 187102-42-7,  
 Benzyl methacrylate-glyceryl methacrylate-methacrylic acid copolymer  
 (photosensitive composition containing hydroxy polymer and  
 naphthoquinonediazide derivative)

L44 ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:174880 HCAPLUS Full-text  
 DOCUMENT NUMBER: 126:179083  
 TITLE: Negative photosensitive composition  
 INVENTOR(S): Kondo, Syunichi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 38 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 750230	A2	19961227	EP 1996-109332	19960611
			<--	
EP 750230	A3	19970416		
EP 750230	B1	19990210		
R: DE, GB				
JP 09062005	A	19970307	JP 1995-204743	19950810
			<--	
US 5725994	A	19980310	US 1996-657193	19960603
			<--	
PRIORITY APPLN. INFO.:			JP 1995-147626	A 19950614
			<--	
			JP 1995-204743	A 19950810
			<--	

OTHER SOURCE(S): MARPAT 126:179083

ED Entered STN: 15 Mar 1997

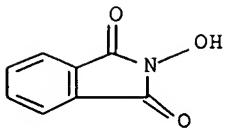
AB Disclosed are a novel photosensitive composition which can form a sharp neg. image, a photosensitive composition recordable independently of the emission wavelength of an exposure light source, and particularly, a photosensitive composition recordable in a region from near IR to IR (heat rays), a method for producing a novel image recording material which can form a sharp neg. image, and a heat mode write type lithog. printing plate for direct plate making which can directly record digital data of a computer, etc. by use of a solid state laser and a semiconductor laser (heat mode) having an emission region from near IR to IR, utilizing a conventional processing device or printing device as it is. The photosensitive composition comprises an acid precursor, a specified hydroxyimide compound, and a hydroxyl group-containing linear polymer.

IT 524-38-9 7797-81-1

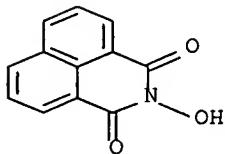
(neg. photoimaging compns. containing acid precursors, hydroxyl-containing polymers and)

RN 524-38-9 HCAPLUS

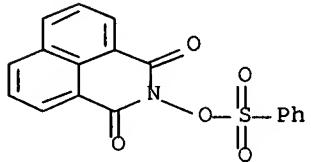
CN 1H-Isoindole-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



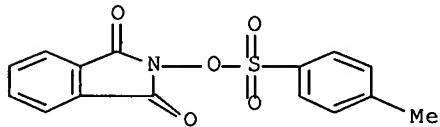
RN 7797-81-1 HCPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IT 23928-87-2 56530-39-3  
 (neg. photoimaging compns. containing hydroxyimides, hydroxyl-containing polymers and)  
 RN 23928-87-2 HCPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(phenylsulfonyl)oxy]- (9CI)  
 (CA INDEX NAME)



RN 56530-39-3 HCPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-[[4-methylphenyl]sulfonyl]oxy- (CA INDEX NAME)



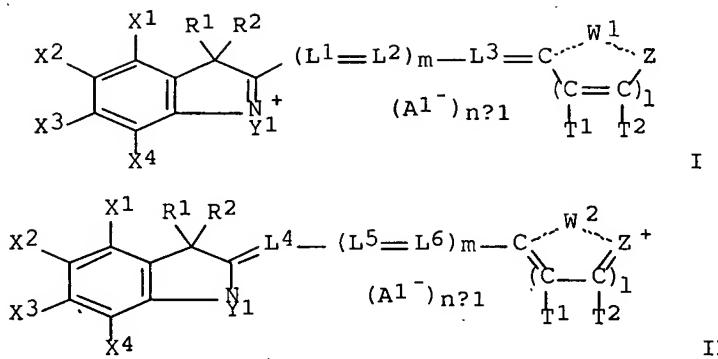
IC ICM G03F007-038  
 ICS G03F007-004  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)  
 ST neg photosensitive compn lithog plate; hydroxyimide hydroxyl  
 contg polymer photosensitive compn  
 IT Negative photoresists  
 (containing acid precursors, hydroxyimides, and hydroxyl-containing  
 polymers)  
 IT Integrated circuits  
 Lithographic plates  
 Projection slides  
 (neg. photoimaging compns. containing acid precursors, hydroxyimides,  
 and hydroxyl-containing polymers for preparation of)  
 IT 524-38-9 5596-17-8 7797-81-1 21715-90-2  
 41580-64-7  
 (neg. photoimaging compns. containing acid precursors, hydroxyl-containing  
 polymers and)  
 IT 3712-60-5 23928-87-2 56530-39-3 91222-48-9  
 146793-37-5 176109-33-4  
 (neg. photoimaging compns. containing hydroxyimides, hydroxyl-containing  
 polymers and)

L44 ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1996:751319 HCAPLUS Full-text  
 DOCUMENT NUMBER: 126:24846  
 TITLE: Electrophotographic image formation by scanning  
 exposure for manufacture of lithographic  
 plate  
 INVENTOR(S): Kato, Eiichi; Nakayama, Takao; Ishii, Kazuo  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08234463	A	19960913	JP 1995-77797 <--	19950403
PRIORITY APPLN. INFO.:			JP 1995-77797 <--	A 19950403
			JP 1994-325900 <--	19941227

ED Entered STN: 21 Dec 1996  
 GI



AB The method employs an electrophotog. photoreceptor comprising a conductive support with backcoat layer with surface resistivity  $\leq 1 + 10^{10}$   $\Omega\text{-cm}$  coated with a photosensitive layer containing a binder, an inorg. photoconductor, a chemical sensitizer, sensitizing dye I and/or II [R1-2 = alkyl, alkenyl, aralkyl, R1 and R2 may form an alicyclic ring; X1-4 = H, substituent defined by Hammett's substituent constant, X1 and X2, X3 and X4 may form a benzene ring; Y1-2 = alkyl, alkenyl, aralkyl; Z = O, S, Se, Te, N substituted for Y2; W1 = atoms to form (substituted) indolenine, naphthoindolenine, pyran, benzopyran, naphthopyran, thiopyran, benzothiopyran, naphthothiopyran, selenapyran, benzoselenapyran, naphthoselenapyran, telnapyran, benzotelnapyran, naphthotelnapyran, benzothiazole, naphthothiazole, or (substituted) N-containing heterocycle; W2 = onium salt of heterocycle; T1-2 = H, aliphatic or aromatic group; L1-2 = methine; A1- = anion; l = 0-1, m = 2-3, n = 1-2]. The photoreceptor gives color images by (near) IR beam exposure even the environmental condition changes.

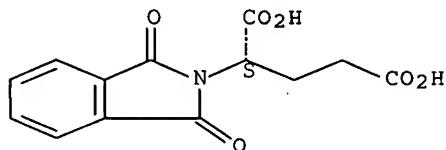
IT 340-90-9 524-38-9, N-Hydroxypthalimide  
1444-94-6 7797-81-1, N-Hydroxy-1,8-naphthalimide  
21715-96-8

(chemical sensitizer; electrophotog. lithog. plate containing sensitizing dye)

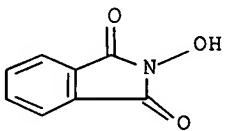
RN 340-90-9 HCPLUS

CN Pentanedioic acid, 2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, (2S)- (9CI) (CA INDEX NAME)

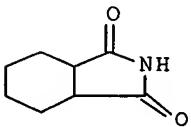
## Absolute stereochemistry.



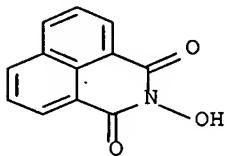
RN 524-38-9 HCPLUS  
CN 1H-Isoindole-1,3 (2H)-dione, 2-hydroxy- (CA INDEX NAME)



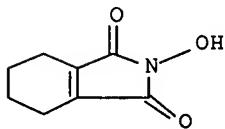
RN 1444-94-6 HCPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, hexahydro- (CA INDEX NAME)



RN 7797-81-1 HCPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



RN 21715-96-8 HCPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrahydro-2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM G03G005-09  
 ICS G03G013-28; G03G015-10  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST electrophotog lithog plate scanning exposure; backcoat layer resistivity electrophotog lithog; sensitizing dye electrophotog lithog plate; chem sensitizer electrophotog lithog plate

IT Styrene-butadiene rubber, uses  
(electrophotog. lithog. plate with resistivity-controlled backcoat layer)

IT Carbon black, uses  
(electrophotog. lithog. plate with resistivity-controlled backcoat layer)

IT Electrophotographic photoconductors (photoreceptors)  
**Lithographic plates**  
(manufacture of electrophotog. lithog. plate by scanning exposure)

IT 69-72-7, Salicylic acid, uses 85-44-9, 1,3-Isobenzofurandione 89-32-7 96-02-6, Chloromaleic anhydride 118-45-6 143-07-7, Dodecanoic acid, uses 147-93-3 340-90-9 524-38-9, N-Hydroxyphthalimide 616-02-4, Methyl maleic anhydride 766-39-2, 2,3-Dimethylmaleic anhydride 1444-94-6 1466-76-8, 2,6-Dimethoxybenzoic acid 2421-28-5 2902-64-9, 4-Methoxycarbonylphthalic anhydride 7170-38-9, 3-Phenoxypropionic acid 7797-81-1, N-Hydroxy-1,8-naphthalimide 21715-90-2 21715-96-8 29006-02-8, 4-Methoxy butyric acid 183959-03-7 (chemical sensitizer; electrophotog. lithog. plate containing sensitizing dye)

IT 121750-10-5 183858-91-5 183858-95-9 183858-97-1 183958-97-6 183958-98-7 183959-00-4 183959-01-5 (electrophotog. lithog. plate containing sensitizing dye)

IT 9003-55-8 (styrene-butadiene rubber, electrophotog. lithog. plate with resistivity-controlled backcoat layer)

L44 ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:367650 HCAPLUS Full-text  
 DOCUMENT NUMBER: 125:45124  
 TITLE: Positive-working photosensitive composition  
 INVENTOR(S): Aoai, Toshiaki; Yamanaka, Tsukasa; Uenishi, Kazuya  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 78 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 708368	A1	19960424	EP 1995-114054	19950907 <--
EP 708368 R: BE, DE	B1	19990630		
JP 08123030	A	19960517	JP 1994-252351	19941018 <--
JP 3317597	B2	20020826		
PRIORITY APPLN. INFO.:			JP 1994-252351	A 19941018 <--

ED Entered STN: 26 Jun 1996

AB A pos.-working photosensitive composition for the production of lithog. plates comprises (a) a resin which is insol. in water but soluble in an alkaline aqueous solution, (b) a compound which generates an acid upon irradiation with active light, (c) a low-mol.-weight acid-decomposable dissoln.-inhibitive compound having a mol. weight of 3000 or less, containing a group decomposable with an acid, and being capable of increasing its solubility in an alkaline developer by the action of an acid, and (d) a resin

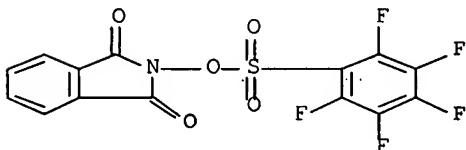
containing a basic nitrogen atom and having a weight-average mol. weight of 2000 or more. The pos.-working photosensitive composition of the present invention can easily and properly inhibit acid diffusion and acid deactivation on the surface thereof with time between the exposure and the heat treatment, keep the dissoln. inhibiting effect exerted by a dissoln.-inhibitive compound, and exhibit a good profile, a high sensitivity, and a high resolving power.

IT 142096-70-6 153698-67-0

(lithog. plate manufacture and resist pattern formation using pos.-working photosensitive compns. containing)

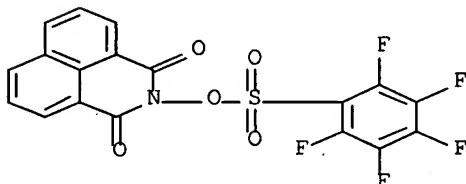
RN 142096-70-6 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[[ (pentafluorophenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



RN 153698-67-0 HCPLUS

CN Benzenesulfonic acid, 2,3,4,5,6-pentafluoro-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)



IC ICM G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos photosensitive compn lithog plate; semiconductive device  
pos photoresist

IT Lithographic plates

Semiconductor devices

(photosensitive compns. containing alkali-soluble resins, photosensitive acid generators, acid-decomposable dissoln. inhibitors, and nitrogen-containing resins for preparation of)

IT Resists

(photo-, pos.-working, containing alkali-soluble resins, photosensitive acid generators, acid-decomposable dissoln. inhibitors, and nitrogen-containing resins)

IT 24979-74-6, Styrene-p-hydroxystyrene copolymer 32335-20-9

66003-76-7, Diphenyliodonium triflate 66003-78-9, Triphenylsulfonium triflate 124737-97-9 124738-06-3 129674-22-2,

4-(tert-Butoxycarbonyloxy)styrene-p-hydroxystyrene copolymer

133685-94-6, o-Hydroxystyrene-p-hydroxystyrene copolymer

138089-25-5, 2,2-Bis(tert-butoxycarbonyloxyphenyl)propane

142096-70-6 149642-75-1, p-Hydroxystyrene-4-vinylpyridine copolymer . 152238-74-9 153698-46-5, Triphenylsulfonium pentafluorobenzenesulfonate 153698-54-5 153698-55-6 153698-59-0 153698-62-5 153698-63-6 153698-67-0 160457-12-5 171429-59-7, p-Acetoxyxystyrene-p-hydroxystyrene copolymer 176109-33-4 177786-96-8 177786-97-9 177786-98-0 177786-99-1, 4-Hydroxystyrene-4-dimethylaminostyrene copolymer 177787-00-7 177787-02-9 177787-03-0 177787-04-1 177787-05-2 177787-06-3 177787-07-4 177787-08-5 177787-09-6 177799-93-8 177799-95-0 178067-74-8 (lithog. plate manufacture and resist pattern formation using pos.-working photosensitive compns. containing) IT 27029-76-1P, m-Cresol-p-cresol-formaldehyde copolymer 112504-03-7P 114651-28-4P 177786-95-7P 177799-92-7P (preparation and use in pos.-working photosensitive compns. for lithog. plate preparation)

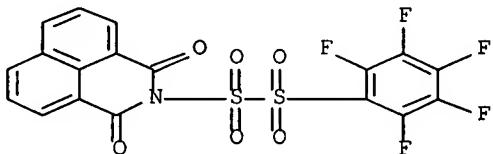
L44 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1996:126694 HCAPLUS Full-text  
 DOCUMENT NUMBER: 124:160416  
 TITLE: Positive photosensitive composition  
 INVENTOR(S): Aoai, Toshiaki; Yamanaka, Tsukasa  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 81 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 691575	A2	19960110	EP 1995-110358	19950703 <--
EP 691575	A3	19960515		
EP 691575	B1	20020320		
R: BE, DE				
JP 08015862	A	19960119	JP 1994-152218	19940704 <--
JP 3290303	B2	20020610		
JP 08022126	A	19960123	JP 1994-157278	19940708 <--
JP 3290305	B2	20020610		
JP 08029982	A	19960202	JP 1994-160143	19940712 <--
JP 3337827	B2	20021028		
US 5824451	A	19981020	US 1995-497795	19950703 <--
PRIORITY APPLN. INFO.:			JP 1994-152218	A 19940704 <--
			JP 1994-157278	A 19940708 <--
			JP 1994-160143	A 19940712 <--

ED Entered STN: 01 Mar 1996  
 AB A pos. photosensitive composition comprises (a) a resin soluble in an aqueous alkali solution containing a specific structure unit, (b) a compound which generates an acid with irradiation of an active ray or radiation, and (c) a low-mol.-weight acid-decomposable dissoln. inhibitor having a mol. weight of not more than 3000, which possesses a tertiary alkyl ester group and whose

solubility in an aqueous alkali solution is increased by the action of an acid, wherein compound (c) is a compound having at least two tertiary alkyl ester groups, in which the longest distance with respect to the distance between two tertiary ester groups selected arbitrarily comprises at least 10 bonding atoms except for the atoms contained in the ester groups or a compound having at least three tertiary alkyl ester groups, in which the longest distance with respect to the distance between two tertiary ester groups. The pos. photosensitive composition has a high sensitivity, high resolution and good profile and excels in storage stability and heat resistance of the resist solution

IT 173786-78-2  
 (acid-generating agent for pos. photosensitive compns. for lithog. plate manufacture)  
 RN 173786-78-2 HCPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[ (pentafluorophenyl)disulfonyl] - (9CI) (CA INDEX NAME)



IC ICM G03F007-004  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST pos photosensitive compn lithog plate; semiconductor device  
 pos photosensitive compn  
 IT Lithographic plates  
 (pos. photosensitive compns. containing alkali-soluble resins and acid generators and acid-decomposable dissoln. inhibitors for)  
 IT Resists  
 (photo-, pos.-working, containing alkali-soluble resins and acid generators and acid-decomposable dissoln. inhibitors)  
 IT 57900-42-2, Triphenylsulfonium hexafluoroarsenate 66003-78-9,  
 Triphenylsulfonium triflate 124737-97-9 144089-15-6,  
 Triphenylsulfonium heptadecafluoroctanesulfonate 153698-46-5,  
 Triphenylsulfonium pentafluorobenzenesulfonate 153698-66-9  
 173786-78-2  
 (acid-generating agent for pos. photosensitive compns. for lithog. plate manufacture)  
 IT 108-24-7DP, Acetic anhydride, reaction products with poly(hydroxystyrene) 24979-70-2DP, Poly(p-hydroxystyrene), reaction products with acetic anhydride 53746-03-5P, p-Acetoxyystyrene-styrene copolymer 134443-05-3P 149614-51-7P 153698-54-5P 153698-58-9P 153698-59-0P 153698-63-6P 153698-65-8P 159293-89-7P 159872-31-8P 162744-66-3P 173786-59-9P 173786-60-2P 173786-61-3P 173786-62-4P 173786-63-5P 173786-64-6P 173786-65-7P 173786-66-8P 173786-67-9P 173786-68-0P 173786-69-1P 173786-70-4P 173786-71-5P 173786-73-7P 173786-74-8P 173786-75-9P 173786-76-0P 173786-77-1P 173786-79-3P 173786-80-6P 173786-81-7P 173786-82-8P  
 (preparation and use in pos. photosensitive compns. for lithog. plate manufacture)

L44 ANSWER 18 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:289993 HCPLUS Full-text  
 DOCUMENT NUMBER: 122:68332  
 TITLE: Positive-working photoresist composition  
 INVENTOR(S): Kondo, Shunichi; Aotani, Norimasa; Umehara, Akira  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06148889	A	19940527	JP 1992-303512	19921113
JP 3206989	B2	20010910		<--
PRIORITY APPLN. INFO.:			JP 1992-303512	19921113
				<--

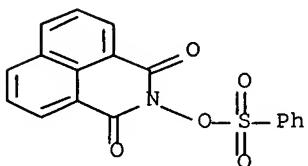
ED Entered STN: 12 Jan 1995

AB The title photoresist composition contains (1) a compound containing  $\geq 2$  R1R2C:CR3O [R1-3 = H, alkyl, aryl,  $\geq 2$  may join to form saturated or olefinic ring] groups, (2) a linear polymer containing acid as well as OH groups, and (3) a compound releasing an acid on photo- or radiolysis, the components (1) and (2) being made to crosslink upon heating. The photoresist gives fine resist patterns when used to prepare lithog. plates, color proofs, overhead projector slides, and integrated circuits for semiconductor devices.

IT 23928-87-2  
 (photo acid generator; photoresist composition containing)

RN 23928-87-2 HCPLUS

CN 1H-Benz [de]isoquinoline-1,3(2H)-dione, 2-[(phenylsulfonyl)oxy]- (9CI)  
 (CA INDEX NAME)



IC ICM G03F007-039  
 ICS G03F007-004; G03F007-038; H01L021-027  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST photoresist pos working  
 IT Graphic arts  
 (photoresist composition for)  
 IT Semiconductor devices  
 (photoresist for fabrication of)  
 IT Lithographic plates  
 (pos.-working photoresist for)  
 IT Resists  
 (photo-, pos.-working, high-sensitivity broad-wavelength)

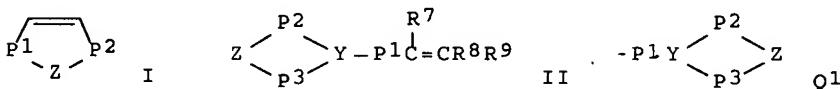
IT Audio-visual aids  
 (projection slides, photoresist composition for)  
 IT 23928-87-2 42573-57-9 72015-32-8 137308-86-2  
 137309-14-9 141425-69-6  
 (photo acid generator; photoresist composition containing)  
 IT 25135-39-1, Carboset 525 28136-81-4, 2-Hydroxyethyl  
 methacrylate-methacrylic acid-methyl methacrylate copolymer  
 31268-56-1 31693-08-0, 2-Hydroxyethyl methacrylate-methacrylic acid  
 copolymer 34306-73-5, Carboset 526 52411-04-8 65697-21-4, Benzyl  
 methacrylate-methacrylic acid copolymer 84040-76-6 100493-79-6,  
 Acrylic acid-benzyl methacrylate-2-hydroxyethyl methacrylate copolymer  
 103106-58-7, Carboset XL-44 141655-30-3, Benzyl methacrylate-2-  
 hydroxyethyl methacrylate-methacrylic acid copolymer 142248-13-3  
 150610-14-3 150610-16-5 150610-26-7 160143-33-9 160143-34-0  
 160143-35-1 160143-36-2 160143-37-3  
 (photoresist composition containing)

L44 ANSWER 19 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:226827 HCPLUS Full-text  
 DOCUMENT NUMBER: 122:20529  
 TITLE: Positive-type photosensitive compositions  
 INVENTOR(S): Aoso, Toshiaki; Mizutani, Kazuyoshi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 83 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06011838	A	19940121	JP 1991-12665 ---	19910111
PRIORITY APPLN. INFO.:			JP 1991-12665 ---	19910111

ED Entered STN: 06 Dec 1994  
 GI



AB The aqueous alkali-developable title compns. for lithog. plates, resists, etc., with good O plasma resistance comprise polysiloxanes containing  $\geq 1$  mol% siloxane units formed by thermal cycloaddn. reaction of R1R2C:CR3C(SiX1X2X3):CR4R5, R1R2C:CR3CR4:CR5SiX1X2X3, R1R2C:CR3C(SiR6X1X2):CR4R5, or R1R2C:CR3CR4:CR5SiR6X1X2 with QP1CR7:CR8R9, I, II, or QP1C.tplbond.CR9, (B) compds. having  $\geq 1$  acid-decomposable group and showing increased solubility in the alkali developer by acid, and (C) compds. producing acid upon light or radiation irradiation. In the formulas, R1-5 = H, (un)substituted alkyl, aryl, silyl, siloxy; R6 = H, (un)substituted alkyl, aryl, R1R2C:CR3C:CR4R5, R1R2C:CR3CR4:CR5; R7-9 = H, (un)substituted alkyl, aryl, alkoxy, cyano, nitro, -P1Q, Q1, optionally containing O, CO, CO2, O2C,

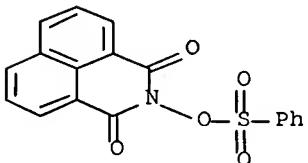
CONR<sub>10</sub>, NR<sub>10</sub>CO, SO<sub>2</sub>, SO<sub>3</sub>; R<sub>10</sub> = H, (un)substituted alkyl, aryl; R<sub>7</sub>R<sub>8</sub> or R<sub>7</sub>P<sub>1</sub> may be ring member; X<sub>1-3</sub> = hydroxy or hydrolyzable group; P<sub>1-3</sub> = direct bond, (un)substituted alkylene, arylene, O, CO, CO<sub>2</sub>, O<sub>2</sub>C, CONR<sub>10</sub>, NR<sub>10</sub>CO, SO<sub>2</sub>, SO<sub>3</sub>; Y = trivalent aromatic group; Q = acid group of pKa below 12; Z<sub>1</sub> = C(R<sub>7</sub>)(P<sub>1</sub>Q), CONHCO, CON(OH)CO, CON(P<sub>1</sub>Q)CO, =Y<sub>n+2</sub>(P<sub>1</sub>Q)<sub>n</sub>; Y<sub>n+2</sub> = (n + 2)-valent aromatic group; n = 1-3.

IT 23928-87-2

(silsesquioxane pos.-type photoresists containing)

RN 23928-87-2 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(phenylsulfonyl)oxy]- (9CI)  
(CA INDEX NAME)



IC ICM G03F007-075

ICS G03F007-004; G03F007-039; H01L021-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST silsesquioxane photoresist alkali developable;  
lithog plate silsesquioxane alkali developable

IT Silsesquioxanes

(photoresists and lithog. plates)

IT Lithographic plates

(silsesquioxane-based)

IT Resists

(photo-, silsesquioxane-based)

IT 74508-34-2, 4-Trimethylsilyloxyxystyrene homopolymer 87261-04-9,  
Poly(4-tert-butoxycarbonyloxyxystyrene)  
(in silsesquioxanes for photoresists and lithog. plates)

IT 541-59-3DP, Maleimide, reaction products with  
(trimethoxysilyl)butadiene-phenyltriethoxysilane silsesquioxane  
(manufacture for photoresist and lithog. plates)

IT 142-45-0DP, Acetylenedicarboxylic acid, reaction products with  
(trimethoxysilyl)butadiene-tolyltrimethoxysilane silsesquioxane  
2210-24-4DP, N-Phenylacrylamide, reaction products with  
silsesquioxanes 21282-96-2DP, reaction products with silsesquioxanes  
131290-90-9DP, reaction products with silsesquioxanes 159440-41-2DP,  
reaction products with acetylenedicarboxylic acid 159448-33-6DP,  
reaction products with maleimide 159448-34-7DP, reaction products  
with (toluenesulfonyl)acrylamide  
(manufacture for photoresists and lithog. plates)

IT 159519-43-4P 159519-44-5P

(pos.-type photoresists)

IT 69432-40-2P 91222-48-9P 141425-69-6P  
(silsesquioxane pos.-type photoresists containing)

IT 23928-87-2 74227-35-3 75482-18-7  
(silsesquioxane pos.-type photoresists containing)

ACCESSION NUMBER: 1994:711863 HCAPLUS Full-text  
 DOCUMENT NUMBER: 121:311863  
 TITLE: Electrophotographic photoreceptor sheet used in lithographic platemaking  
 INVENTOR(S): Kato, Eiichi; Tashiro, Hiroshi; Ishii, Kazuo  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06027750	A	19940204	JP 1992-201812	19920707
			<--	
PRIORITY APPLN. INFO.:			JP 1992-201812	19920707
			<--	

ED Entered STN: 24 Dec 1994  
 AB In the title electrophotog. photoreceptor sheet comprising a conductive support, a photoconductive layer incorporating a photoconductor compound and a binder resin, and a claimed surface layer, the latter contains a binder resin(s) (A) and the photosensitive layer contains a binder resin(s) (B). Binder resin (A) contains a polymer component(s) which yields  $\geq 1$  CO<sub>2</sub>H on reaction, a component(s) which yields  $\geq 1$  selected from SO<sub>3</sub>H, SO<sub>2</sub>H, and PO<sub>3</sub>H, and  $\geq 1$  components which yield thermo- or photohardenable groups on reaction. Binder resin (B) (weight average mol. weight 1 x 10<sup>3</sup>-2 x 10<sup>4</sup>) possesses the structural repeating unit CH<sub>a1</sub>Ca<sub>a2</sub>(CO<sub>2</sub>Q<sub>3</sub>) [a<sub>1</sub>,a<sub>2</sub> = H, halo, CN, hydrocarbyl; Q<sub>3</sub> = hydrocarbyl]  $\geq 30\%$ , and polar groups selected from PO<sub>3</sub>H, SO<sub>3</sub>H, P(O)(OH)Q<sub>1</sub> [Q<sub>1</sub> = hydrocarbyl, Q<sub>2</sub> (Q<sub>2</sub> = hydrocarbyl)], and cyclic acid anhydride are present in the polymer chain or at 1 end of the polymer chain. The photoreceptor sheet resists background soiling, has superior desensitization characteristics, and gives highly durable lithog. plates.

IT 159319-90-1P  
 (electrophotog. photoreceptor sheet surface layer containing)

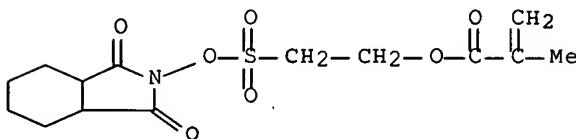
RN 159319-90-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-isobenzofurandione, 1-methyl-4-(2-methylphenyl)-3-oxobutyl 2-methyl-2-propenoate, 2-[(octahydro-1,3-dioxo-2H-isoindol-2-yl)oxy]sulfonylethyl 2-methyl-2-propenoate, and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

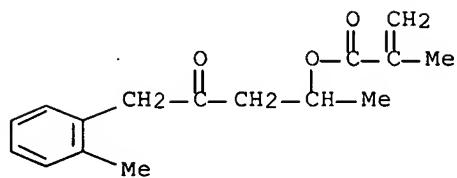
CM 1

CRN 159319-89-8

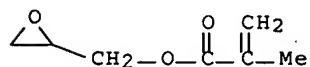
CMF C14 H19 N 07 S



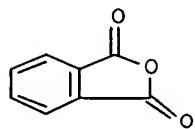
CM 2

CRN 159319-88-7  
CMF C16 H20 O3

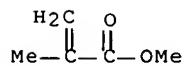
CM 3

CRN 106-91-2  
CMF C7 H10 O3

CM 4

CRN 85-44-9  
CMF C8 H4 O3

CM 5

CRN 80-62-6  
CMF C5 H8 O2

IC ICM G03G013-28  
 ICS G03G005-05; G03G005-06; G03G005-08  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 ST electrophotog photoreceptor sheet lithog plate  
 IT Electrophotographic photoconductors and photoreceptors  
     Lithographic plates  
     (Electrophotog. photoreceptor sheet used in lithog.  
     platemaking)  
 IT 9011-14-7DP, Methyl methacrylate homopolymer, carboxylated  
 65697-21-4P 89162-03-8P 126969-71-9P, Chlorophenyl  
 methacrylate-methacrylic acid copolymer 128338-05-6P, Benzyl  
 methacrylate-thiosalicylic acid telomer 130094-33-6P 131808-63-4P  
 135740-31-7P 135740-32-8P 135740-33-9P 135740-35-1P  
 135740-36-2P 135740-41-9P 135740-43-1P 137285-52-0P,  
 2,6-Dichlorophenyl methacrylate-acrylic acid copolymer  
 138123-83-8DP, Methacrylic acid-1-naphthyl methacrylate copolymer,  
 carboxy-terminated 146817-57-4P 146817-58-5P 149234-62-8P,  
 Benzyl methacrylate-thioglycolic acid telomer 155246-75-6P  
 155246-76-7P 155246-78-9P 155246-79-0P 155246-80-3P  
 155246-82-5P 155246-84-7P 155246-85-8P 155246-89-2P  
 155246-95-0P 155246-96-1P 155247-00-0P 155247-02-2P  
 155247-06-6P 155247-08-8P 155838-53-2P 155838-55-4P  
 159319-71-8P 159319-73-0P  
     (binder resin; Electrophotog. photoreceptor sheet used in  
     lithog. platemaking)  
 IT 155838-99-6P 159319-77-4P 159319-79-6P 159319-82-1P  
 159319-84-3P 159319-87-6P 159319-90-1P 159319-92-3P  
 159319-94-5P 159319-96-7P 159319-98-9P 159319-99-0P  
 159320-01-1P 159320-02-2P 159320-03-3P 159320-05-5P  
 159320-06-6P 159320-07-7P 159320-08-8P 159320-09-9P  
 159320-10-2P 159320-11-3P 159320-12-4P 159320-13-5P  
 159320-14-6P 159320-18-0P 159320-20-4P 159320-21-5P  
 159320-22-6P  
     (electrophotog. photoreceptor sheet surface layer containing)

L44 ANSWER 21 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:617658 HCPLUS Full-text  
 DOCUMENT NUMBER: 121:217658  
 TITLE: Water-developable oxygen plasma-resistant  
       photoresist  
 INVENTOR(S): Aoso, Toshiaki; Mizutani, Kazuyoshi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06059458	A	19940304	JP 1991-12671 <--	19910111
PRIORITY APPLN. INFO.:			JP 1991-12671 <--	19910111

ED Entered STN: 29 Oct 1994

AB The title photoresist comprises a polysiloxane containing  $\geq 1$  mol% of siloxane units derived from the cyclization-thermal addition products of organosilicon compds. and a photosensitive azide. The title neg.-working photoresist is

useful in making lithog. plates, in color proofing, in making transparencies for overhead projectors, and in fine patterning for semiconductor device fabrication.

IT 158257-45-5P 158257-52-4P 158257-54-6P  
(Water-developable oxygen plasma-resistant  
photoresist containing)

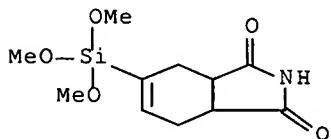
RN 158257-45-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-5-(trimethoxysilyl)-,  
polymer with trimethoxyphenylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 158257-44-4

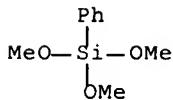
CMF C11 H17 N O5 Si



CM 2

CRN 2996-92-1

CMF C9 H14 O3 Si



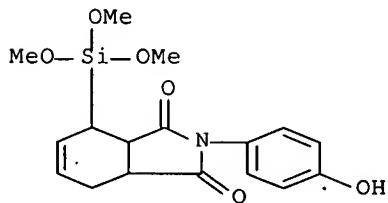
RN 158257-52-4 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-(4-hydroxyphenyl)-4-(trimethoxysilyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 158257-51-3

CMF C17 H21 N O6 Si



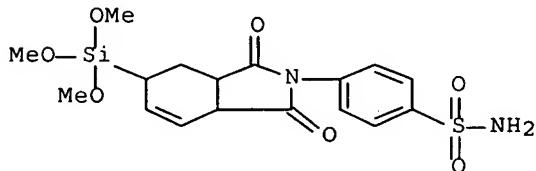
RN 158257-54-6 HCPLUS

CN Benzenesulfonamide, 4-[1,3,3a,4,5,7a-hexahydro-1,3-dioxo-5-(trimethoxysilyl)-2H-isoindol-2-yl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 158257-53-5

CMF C17 H22 N2 O7 S Si



IC ICM G03F007-075

ICS C08L083-04; G03F003-10; G03F007-00; G03F007-008; G03F007-038; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photoresist polysiloxane azide

IT Silsesquioxanes  
(Water-developable oxygen plasma-resistant photoresist)IT Lithographic plates  
(Water-developable oxygen plasma-resistant photoresist for)IT Semiconductor devices  
(Water-developable oxygen plasma-resistant photoresist for fabrication of)IT Resists  
(photo-, polysiloxane- and azide-containing)IT 5284-79-7, 2,6-Di(4'-azidobenzal)-4-methylcyclohexanone 5284-80-0  
(Water-developable oxygen plasma-resistant photoresist containing)IT 158257-43-3P 158257-45-5P 158257-47-7P 158257-50-2P  
158257-52-4P 158257-54-6P  
(Water-developable oxygen plasma-resistant photoresist containing)

L44 ANSWER 22 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:480354 HCPLUS Full-text

DOCUMENT NUMBER: 121:80354

TITLE: Electrophotographic plates for lithographic plates with improved oleosensitization characteristics

INVENTOR(S): Kato, Eiichi; Ishii, Kazuo

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 103 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05066578	A	19930319	JP 1991-227963	19910909
				<--
PRIORITY APPLN. INFO.:			JP 1991-227963	19910909
				<--

ED Entered STN: 20 Aug 1994

AB The title electrophotog. plate is comprised of an electroconductive support coated with a photoconductive layer and a surface layer with the former containing a spectral sensitizer dye and a binder resin (A) and the latter containing  $\geq 1$  type of nonaq. resin-dispensed resin particles. Resin (A) (weight average mol. weight 1 + 103-2 + 104) contains the polymer component, CHa1Ca2(CO2R3) [a1, a2 = H, halo, CN, hydrocarbon group; R3 = hydrocarbyl]  $\geq 30\%$  and a polymer component 0.5-15% containing  $\geq 1$  type of polar groups selected from PO3H2, SO3H, CO2H, etc. The above nonaq. solvent-dispersed resin particles are obtained by dispersion polymerizing  $\geq 1$  type of monofunctional monomers containing  $\geq 1$  type of functional groups capable of decomposing to form SH, phosphono, amino, and(or) R1P(O)(OH) [R1 = hydrocarbyl, or OR2 (R2 = hydrocarbyl)] becoming insol. upon polymerization in the presence of a nonaq. solvent soluble dispersion- stabilizing resin. The electrophotog. plate gives superior lithog. plates and good durability even under severe conditions.

IT 149235-54-1

(latex, electrophotog. photoreceptor from)

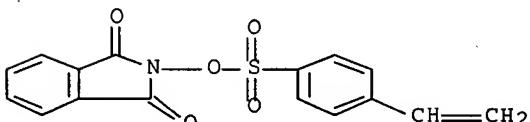
RN 149235-54-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with butyl 2-methyl-2-propenoate, 2-[(4-ethenylphenyl)sulfonyl]oxy]-1H-isoindole-1,3(2H)-dione and oxiranylmethyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 137961-76-3

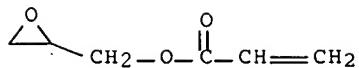
CMF C16 H11 N 05 S



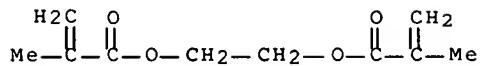
CM 2

CRN 106-90-1

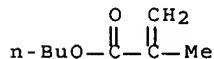
CMF C6 H8 O3



CM 3

CRN 97-90-5  
CMF C10 H14 O4

CM 4

CRN 97-88-1  
CMF C8 H14 O2

IC ICM G03G005-05  
 ICS G03G005-06; G03G005-147; G03G013-28  
 CC 14-3 (Mammalian Pathological Biochemistry)  
 ST electrophotog lithog plate durability; binder resin  
 electrophotog lithog plate  
 IT Acrylic polymers, uses  
 (binder resins and latexes from, lithog. masters from)  
 IT Lithographic plates  
 (electrophotog., offset, stain-resistant)  
 IT Electrophotographic photoconductors and photoreceptors  
 (for lithog. masters)  
 IT 149235-48-3 149235-49-4 149235-51-8 149235-54-1  
 149235-55-2 149235-56-3 149235-57-4 149275-09-2 149275-10-5  
 149476-82-4 149478-77-3 149512-92-5 149512-93-6 149512-94-7  
 149512-95-8 149512-96-9 149512-97-0 149512-98-1 149512-99-2  
 149544-80-9 152546-32-2 155452-76-9  
 (latex, electrophotog. photoreceptor from)

L44 ANSWER 23 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:204700 HCAPLUS Full-text  
 DOCUMENT NUMBER: 120:204700  
 TITLE: Positive-type light-sensitive composition  
 INVENTOR(S): Yamanaka, Tsukasa; Aoai, Toshiaki; Uenichi,  
 Kazuya; Kondo, Shunichi; Kokubo, Tadayoshi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 81 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 541112	A1	19930512	EP 1992-119043	19921106
			<--	
EP 541112	B1	20010905		
R: BE, DE, FR, GB				
JP 06051519	A	19940225	JP 1992-299093	19921013
			<--	
PRIORITY APPLN. INFO.:			JP 1991-319600	A 19911108
			<--	
			JP 1992-47705	A 19920205
			<--	
			JP 1992-47782	A 19920205
			<--	
			JP 1992-166685	A 19920603
			<--	
			JP 1992-299093	A 19921013
			<--	

OTHER SOURCE(S): MARPAT 120:204700

ED Entered STN: 16 Apr 1994

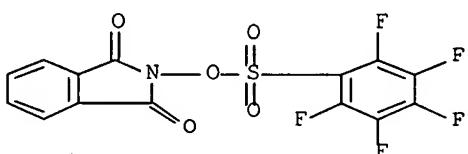
AB A pos.-type light-sensitive composition useful in manufacture of a lithog. plate or a semiconductor device and having less layer shrinkage by baking after exposing, less layer decrease in developing, a good profile, and a high resolution comprises (a) a resin which is insol. in water and soluble in an alkaline aqueous solution, (b) a compound which generates an acid by irradiation with active rays or radial rays, and (c) an acid-decomposable dissoln. inhibitor, having a mol. weight of not more than 3000 and having groups decomposable by the action of the generated acid to increase the solubility of said inhibitor in an alkaline developing solution, wherein said inhibitor (c) is at least one compound selected from the group consisting of (i) compds. having two of said acid decomposable groups which are separated by 10 or more bonded atoms excluding the atoms constituting the acid decomposable groups and (ii) compds. having at least three of said acid decomposable groups and two of said groups which are at the farthest positions are separated by 9 or more bonded atoms excluding the atoms constituting the acid decomposable groups.

IT 142096-70-6 153698-67-0

(pos. photoresist composition containing alkali-soluble resins, acid-decomposable dissoln. inhibitors and, for lithog. plate and semiconductor device manufacture)

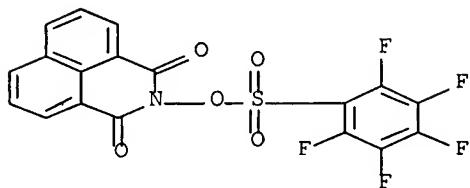
RN 142096-70-6 HCPLUS

CN 1H-Isoindole-1,3 (2H)-dione, 2-[[ (pentafluorophenyl)sulfonyl]oxy] - (9CI) (CA INDEX NAME)



RN 153698-67-0 HCAPLUS

CN Benzenesulfonic acid, 2,3,4,5,6-pentafluoro-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)



IC ICM G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos photosensitive compn lithog plate; acid generator pos photosensitive compn

IT Lithographic plates

Semiconductor devices

(manufacture of, pos. photoresist compns. containing photosensitive acid generators, alkali-soluble resins, and acid-decomposable dissoln. inhibitors for)

IT Phenolic resins, uses

(novolak, pos. photoresist compns. containing photosensitive acid generators, acid-decomposable dissoln. inhibitors and, for lithog. plate and semiconductor device manufacture)

IT Resists

(photo-, pos., containing photosensitive acid generators, alkali-soluble resins, and acid-decomposable dissoln. inhibitors)

IT 57900-42-2 59626-75-4 62613-15-4 66003-78-9 124737-97-9

142096-70-6 153698-46-5 153698-66-9 153698-67-0

(pos. photoresist composition containing alkali-soluble resins, acid-decomposable dissoln. inhibitors and, for lithog. plate and semiconductor device manufacture)

IT 152238-74-9 153698-48-7 153698-49-8 153698-50-1 153698-51-2

153698-52-3 153698-53-4 153698-54-5 153698-55-6 153698-56-7

153698-57-8 153698-58-9 153698-59-0 153698-60-3 153698-61-4

153698-62-5 153698-63-6 153698-64-7 153698-65-8 153840-05-2

(pos. photoresist compns. containing alkali-soluble resins, photosensitive acid generators and, for lithog. plate and semiconductor device manufacture)

IT 24979-70-2, Poly(p-hydroxystyrene) 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 112504-03-7 123236-78-2

(pos. photoresist compns. containing photosensitive acid generators, acid-decomposable dissoln. inhibitors and, for lithog. plate and semiconductor device manufacture)

IT 153698-58-9P 153698-68-1P 153698-69-2P 153698-70-5P

(preparation and use of, as acid-decomposable dissoln. inhibitor for pos. photoresist compns.)

IT 110-87-2, 3,4-Dihydro-2H-pyran 865-47-4 4466-18-6 5292-43-3, tert-Butylbromoacetate 24424-99-5, Di-tert-butyldicarbonate

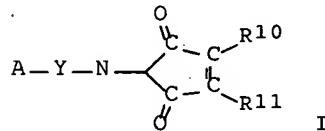
76937-83-2 110726-28-8 153698-47-6

(reaction of, in preparing acid-decomposable dissoln. inhibitor for pos. photoresist compns.)

L44 ANSWER 24 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1993:682246 HCAPLUS Full-text  
 DOCUMENT NUMBER: 119:282246  
 TITLE: Synthesis of functional group-containing siloxane  
 for photosensitive composition  
 INVENTOR(S): Aoso, Toshiaki; Mizutani, Kazuyoshi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

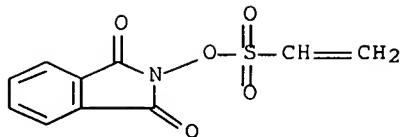
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04363326	A	19921216	JP 1991-12675	19910111
JP 2736939	B2	19980408		<--
PRIORITY APPLN. INFO.:			JP 1991-12675	19910111
				<--

ED Entered STN: 25 Dec 1993  
 GI



AB The title synthesis is carried out by heating  $\geq 1$  of  $R1R2C=CR3C(SiX1X2X3)=CR4R5$  or  $R1R2C=CR3CR4=CR5(SiX1X2X3)$  with  $\geq 1$  of  $R6R7C:CR8(YA)$ ,  $R9C.tpbond.CYA$ , or I ( $R1-R5 = H$ , alkyl, aryl, alkoxy;  $R6-R9 = H$ , halo, CN, CO, alkyl, aryl, alkoxy,  $SO2R12$ ,  $SO3R12$ ,  $COR12$ ,  $CONHR12$ ,  $CO2R12$ , YA;  $R12 = alkyl$ , aryl;  $R10$ ,  $R11 = H$ , alkyl, aryl;  $Y = single bond$ , divalent aromatic or aliphatic hydrocarbon group;  $A = functional group$ ;  $X1$ ,  $X2$ ,  $X3 = hydrolyzable group$ , alkyl, aryl, aralkyl, YA,  $R1R2C=CR3C=CR4R5$ ,  $R1R2C=CR3CR4=CR5$ , at least 2 of them are hydrolyzable groups; 2 of  $R6-R8$  and  $Y$  or  $R10-R11$  may form ring) to effect ring-forming addition reaction (Diels-Alder reaction), hydrolysis of the resultant adduct, and condensation to give a functional group-containing siloxane. The functional group may be decomposed under the reaction of an acid or an acid group having a  $pKa < 12$ , may react by the irradiation of actinic rays or radiation beams, or may be sensitive to actinic rays or radiation beams. The siloxane may be used to prepare photosensitive compns. for manufacturing presensitized lithog. plates and UV photoresists.

IT 138046-04-5P  
 (preparation and reaction of, for photosensitive siloxane preparation)  
 RN 138046-04-5 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethenylsulfonyl)oxy]- (9CI) (CA INDEX  
 NAME)



IC ICM C08G077-04  
 ICS C08G077-06; G03F007-00; G03F007-075; H01L021-027  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST siloxane synthesis photosensitive compn; functional group bearing siloxane synthesis; presensitized lithog plate photosensitive siloxane; UV photoresist photosensitive siloxane  
 IT Siloxanes and Silicones, uses  
     (photosensitive, for presensitized lithog. plates and photoresists)  
 IT Resists  
     (photo-, UV, photosensitive siloxanes for)  
 IT Lithographic plates  
     (presensitized, manufacture of, photosensitive compns. containing siloxanes for)  
 IT 138046-04-5P 138220-56-1P  
     (preparation and reaction of, for photosensitive siloxane preparation)

L44 ANSWER 25 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:613948 HCAPLUS Full-text

DOCUMENT NUMBER: 119:213948

TITLE: Electrophotographic lithographic printing plate

INVENTOR(S): Kato, Eiichi; Kasai, Seishi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: PCT Int. Appl., 242 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9218906	A1	19921029	WO 1992-JP465	19920413 <--
W: US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
JP 04314056	A	19921105	JP 1991-106511	19910412 <--
JP 3112176	B2	20001127		
JP 04362648	A	19921215	JP 1991-165249	19910611 <--
JP 04362649	A	19921215	JP 1991-165250	19910611 <--
JP 05034946	A	19930212	JP 1991-207237	19910725 <--
JP 3112178	B2	20001127		
EP 535251	A1	19930407	EP 1992-908530	19920413 <--

EP 535251  
R: DE, GB  
US 5294507

B1	19970730		
A	19940315	US 1992-990338	19921214
		<--	
PRIORITY APPLN. INFO.:		JP 1991-106511	A 19910412
		<--	
		JP 1991-165249	A 19910611
		<--	
		JP 1991-165250	A 19910611
		<--	
		JP 1991-207237	A 19910725
		<--	
		WO 1992-JP465	W 19920413
		<--	

ED Entered STN: 13 Nov 1993

AB An electrophotog. lithog. printing plate having a photoconductive layer prepared by the dispersion polymerization of a resin (A) composed of polymer component with specified repeating units and a polar polymer component and having an average mol. weight of 1,000-20,000 and a monomer (C) with a functional group yielding, when decomposed, at least one group selected among thiol, sulfo, amino, and (Z0:)PR(Z0-H) [Z0 = O, S; R = Z0-H, hydrocarbon, Z0-R1 (R1 = hydrocarbon)] in the presence of a dispersion stabilizing resin soluble in a nonaq. solvent, said layer further containing dispersed resin particles (L) having Si- and/or F-containing substituents. This plate has good electrophotog. qualities and H2O retentivity in virtue of appropriate interactions among Zn oxide, a spectral sensitizer, the resin (A) and the resin particle (L), and gives excellent printed images with a high resistance to abrasion on the press even under severe conditions. Also, it works effectively in the scanning exposure using semiconductor laser beams.

IT 149234-47-9P 149234-69-5P

(preparation and use of, electrophotog. lithog. printing plate from)

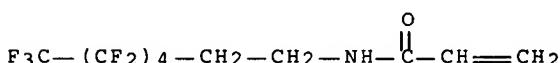
RN 149234-47-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 2-[(4-ethenylphenyl)sulfonyloxy]-1H-isoindole-1,3(2H)-dione, hexyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and N-(3,3,4,4,5,5,6,6,7,7,7-undecafluoroheptyl)-2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 149234-46-8

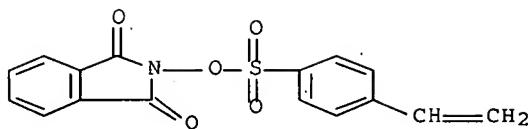
CMF C10 H8 F11 N O



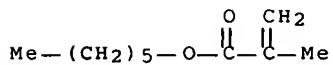
CM 2

CRN 137961-76-3

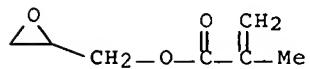
CMF C16 H11 N O5 S



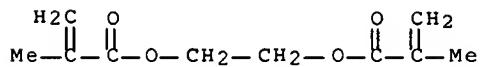
CM 3

CRN 142-09-6  
CMF C10 H18 O2

CM 4

CRN 106-91-2  
CMF C7 H10 O3

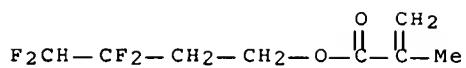
CM 5

CRN 97-90-5  
CMF C10 H14 O4

RN 149234-69-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
 2-[(4-ethenylphenyl)sulfonyl]oxy]-1H-isoindole-1,3(2H)-dione,  
 oxiranylmethyl 2-propenoate and 3,3,4,4-tetrafluorobutyl  
 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

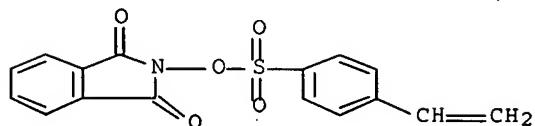
CM 1

CRN 138506-00-0  
CMF C8 H10 F4 O2



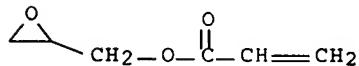
CM 2

CRN 137961-76-3  
 CMF C16 H11 N 05 S



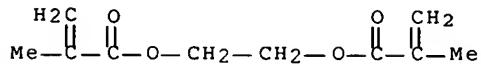
CM 3

CRN 106-90-1  
 CMF C6 H8 O3



CM 4

CRN 97-90-5  
 CMF C10 H14 O4



IC ICM G03G005-05  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST electrophotog lithog printing plate  
 IT Lithographic plates  
     (electrophotog., photoconductive layer of)  
 IT 149212-64-6P 149212-66-8P 149212-68-0P 149212-70-4P  
     149212-71-5P 149212-73-7P 149212-74-8P 149212-75-9P

149212-76-0P	149212-77-1P	149212-78-2P	149212-79-3P
149212-80-6P	149212-81-7P	149212-83-9P	149212-84-0P
149212-85-1P	149212-86-2P	149212-87-3P	149212-88-4P
149212-89-5P	149212-90-8P	149234-20-8P	149234-30-0P
149234-31-1P	149234-33-3P	149234-35-5P	149234-37-7P
149234-39-9P	149234-41-3P	149234-42-4P	149234-44-6P
149234-45-7P	149234-47-9P	149234-48-0P	149234-49-1P
149234-50-4P	149234-51-5P	149234-52-6P	149234-54-8P
149234-56-0P	149234-57-1P	149234-58-2P	149234-59-3P
149234-60-6P	149234-61-7P	149234-64-0P	149234-65-1P
149234-66-2P	149234-67-3P	149234-68-4P	149234-69-5P
149235-74-5P	149235-75-6P	149235-80-3P	149235-82-5P
149235-83-6P	149265-77-0P	149275-06-9P	149295-65-8P
149295-66-9P	149295-67-0P	149295-69-2P	149295-70-5P
149295-71-6P	149295-72-7P	149295-73-8P	149295-74-9P
149295-75-0P	149295-76-1P	149295-77-2P	149295-78-3P
149295-79-4P	149295-80-7P	149295-81-8P	149295-86-3P
149333-66-4P	149545-01-7P		

(preparation and use of, electrophotog. lithog. printing plate from)

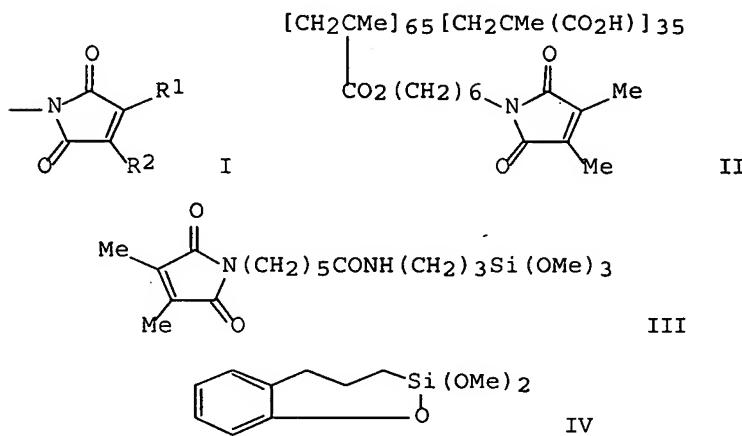
IT 9011-14-7DP, Methyl methacrylate homopolymer, carboxy-terminated  
 25719-51-1DP, carboxy-terminated, ester with 2-hydroxyethyl  
 methacrylate 52229-66-0P 65697-21-4P, Benzyl methacrylate-  
 methacrylic acid copolymer 65697-22-5P 126969-78-6P 128338-04-5P  
 128338-05-6P, Benzyl methacrylate-thiosalicylic acid telomer  
 130094-33-6P 130952-79-3P 131808-63-4P 135740-18-0P  
 135740-30-6P 135740-31-7P 135740-32-8P 135740-33-9P  
 135740-35-1P 135740-37-3P 135740-38-4P 135740-39-5P  
 135740-41-9P 135740-43-1P 135740-44-2P 135740-46-4P  
 135740-47-5P 135770-63-7P 135820-62-1P 138059-26-4P  
 138059-27-5P 138059-28-6P 138059-30-0P 138059-31-1P  
 138059-32-2P 138059-33-3P 138059-34-4P 138059-35-5P  
 138059-36-6P 138123-83-8DP, carboxy-terminated 139357-81-6P  
 139645-92-4P 139989-86-9P 142199-53-9P 142648-25-7P  
 145168-75-8P 145168-89-4P 145168-94-1P 145169-02-4P  
 145169-03-5P 145169-04-6P 145169-26-2P 145169-30-8P  
 145807-40-5P 145807-41-6P 145807-49-4P 145807-51-8P  
 145807-53-0P 145807-54-1P 145807-55-2P 145807-56-3P  
 145807-57-4P 145807-62-1P 145807-63-2P 145807-65-4P  
 145807-66-5P 145807-68-7P 145807-70-1P 145807-71-2P  
 145807-72-3P 145807-78-9P 145807-80-3P 146188-26-3DP,  
 carboxy-terminated, ester with 2-hydroxyethyl methacrylate  
 146716-90-7P 146716-92-9P 146717-07-9P 146817-57-4P  
 146817-58-5P 146817-61-0P 147130-23-2P 147524-36-5P  
 149072-19-5P 149072-21-9DP, allyl amide 149072-24-2DP, reaction  
 product with 2-isocyanatoethyl methacrylate 149093-39-0P  
 149234-62-8P 149234-63-9DP, reaction product with 2-isocyanatoethyl  
 methacrylate 149235-47-2P 149265-78-1P 149265-79-2P  
 149265-80-5P 149265-82-7P 149265-84-9P 149265-85-0P  
 149265-87-2P 149265-89-4P 149295-26-1P 149368-81-0P  
 149368-83-2P 149368-84-3P 149433-97-6P 149433-98-7P  
 149433-99-8P 149434-00-4P 149434-01-5P 149434-02-6P  
 149434-03-7P 149434-04-8P 149434-06-0P 149434-09-3P  
 149434-10-6P 149434-11-7P 149434-15-1P 149434-17-3P  
 149434-21-9P 149434-22-0P 149434-24-2P 149434-25-3P  
 149434-28-6P 149434-33-3P 149434-35-5P 149434-38-8P  
 149658-55-9P

(preparation of, electrophotog. lithog. printing plate from)

ACCESSION NUMBER: 1993:505955 HCAPLUS Full-text  
DOCUMENT NUMBER: 119:105955  
TITLE: Photosensitive compositions with high sensitivity  
and abrasion resistance  
INVENTOR(S): Kunida, Kazuto; Aoshima, Keitaro  
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
JP 05088372	A	19930409	JP 1991-249815 ---	19910927
JP 2652095	B2	19970910	JP 1991-249815	19910927
PRIORITY APPLN. INFO.:				

ED      Entered STN: 04 Sep 1993  
GI



AB The title compns. contain a polymer having photocrosslinkable groups I (R1-2 = H, halo, alkyl, aryl, R1 and R2 may form a ring) and silica particles on which  $\geq 1$  functional group ZR3 (R3 = I; Z = divalent linking group comprising  $\geq 2$  atoms selected from C, H, N, O, S, and Si) are linked via chemical bonding. The compns. show high photosensitivity and provide image parts with good abrasion resistance, and are useful for lithog. plates and photomasks. Thus, an Al substrate was coated with a composition containing the polymer II, Mizukasil P-527U (SiO<sub>2</sub>) treated with III and IV, and additives to give a presensitized lithog. plate.

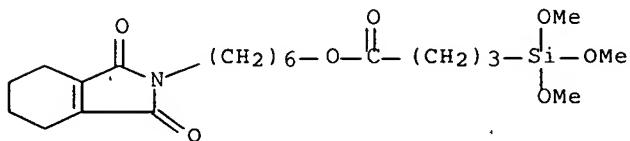
IT 149111-83-1

(coupling agent, silica treated with, photosensitive composition containing)

RN 149111-83-1 HCAPLUS

**CN     Butanoic acid, 4-(trimethoxysilyl)-, 6-(1,3,4,5,6,7-hexahydro-1,3-**

dioxo-2H-isoindol-2-yl)hexyl ester (9CI) (CA INDEX NAME)



IC ICM G03F007-075  
 ICS G03F007-00; G03F007-004; G03F007-038; H01L021-027  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 27  
 ST lithog plate photocrosslinkable maleimide polymer; silane coupling agent photosensitive compn; silica photosensitive compn photomask  
 IT Lithographic plates  
 (presensitized, containing photocrosslinkable polymer and surface-treated silica)  
 IT 123-30-8 2530-83-8 62581-57-1 74651-20-0 79793-00-3  
 94158-47-1 149111-80-8 149111-81-9 149111-82-0  
 149111-83-1 149111-84-2 149111-85-3 149111-86-4  
 149111-87-5  
 (coupling agent, silica treated with, photosensitive composition containing)  
 IT 133830-21-4  
 (photosensitive composition containing for lithog. plate)

L44 ANSWER 27 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:14958 HCPLUS Full-text

DOCUMENT NUMBER: 114:14958

TITLE: Photosensitive compositions

INVENTOR(S): Imai, Masanori; Aoshima, Chutaro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

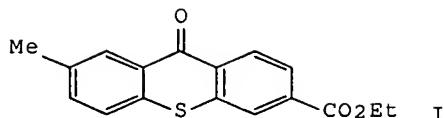
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02189547	A	19900725	JP 1989-9528	19890118
JP 2639722	B2	19970813	<--	
PRIORITY APPLN. INFO.:			JP 1989-9528	19890118
			<--	

ED Entered STN: 12 Jan 1991

GI



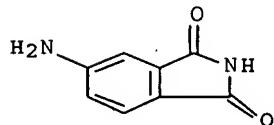
AB The title compns. contain, in side chain, alkali-soluble polymers having photodimerizable maleimide groups and acidic group with pKa 6-12 and ionizable in alkaline solns., and photosensitizers. These compns. are developable with aqueous alkaline solns., are resistant to chems., rubbing and scratching. Thus, 0.06 mol N-(p-methylphenylsulfonyl)methacrylamide and 0.14 mol N-(3-methacryloxypropyl)dimethylmaleimide were polymerized to obtain a copolymer with mol. weight 45,000. A composition containing this copolymer 5, photosensitizer I 0.4, C.I. Pigment Blue 15 10% dispersion 1.0, F-containing nonionic surfactant 0.02 parts and solvents was applied on roughened and anodized Al plate to obtain a photosensitive plate, which was exposed through halftone neg. and developed with 5% Na silicate. The plate gave 50,000 clean copies.

IT 3676-85-5

(methacryloylation of, copolymer for photosensitive lithog  
plates from)

RN 3676-85-5 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-amino- (CA INDEX NAME)



IT 130667-76-4 130667-77-5

(photosensitive lithog. plates containing)

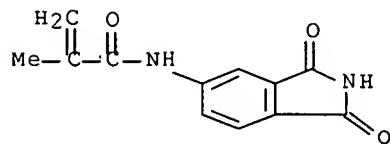
RN 130667-76-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl ester, polymer with N-(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

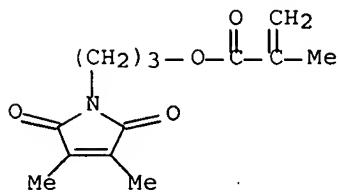
CM 1

CRN 126858-15-9

CMF C12 H10 N2 O3



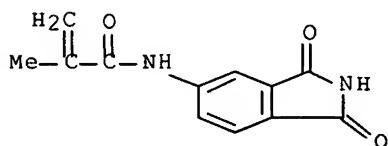
CM 2

CRN 63729-56-6  
CMF C13 H17 N O4

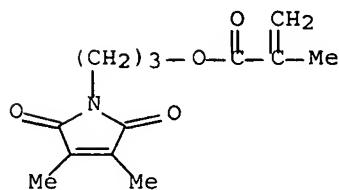
RN 130667-77-5 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl ester, polymer with N-(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)-2-methyl-2-propenamide and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 126858-15-9  
CMF C12 H10 N2 O3

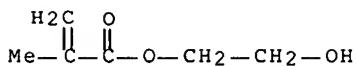
CM 2

CRN 63729-56-6  
CMF C13 H17 N O4

CM 3

CRN 868-77-9

CMF C6 H10 O3

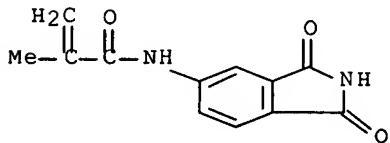


IT 126858-15-9P

(preparation and polymerization of, copolymer for photosensitive lithog  
plates from)

RN 126858-15-9 HCAPLUS

CN 2-Propenamide, N-(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)-2-methyl-  
(9CI) (CA INDEX NAME)



IC ICM G03F007-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)

Section cross-reference(s): 38

ST photosensitive plate alkali developable copolymer; lithog  
plate photosensitive alkali developable

IT Lithographic plates

(photosensitive, alkali-developable copolymers for)

IT 3676-85-5 34321-83-0  
(methacryloylation of, copolymer for photosensitive lithog  
plates from)

IT 130667-70-8 130667-71-9 130667-72-0 130667-73-1 130667-74-2  
130667-75-3 130667-76-4 130667-77-5 130667-78-6  
130667-79-7 130667-80-0 130667-82-2  
(photosensitive lithog. plates containing)

IT 19878-93-4 77084-52-7 107968-57-0  
(photosensitizer, photosensitive lithog. plates containing)

IT 61360-99-4P 63729-56-6P 126858-15-9P 130965-24-1P  
(preparation and polymerization of, copolymer for photosensitive lithog  
plates from)

IT 920-46-7, Methacrylic chloride 4083-64-1  
(reaction of, copolymer for photosensitive lithog. plates  
from)

IT 79-41-4, Methacrylic acid, reactions 868-77-9  
(reaction of, with toluenesulfonylisocyanate, copolymer for  
photosensitive lithog. plates from)

L44 ANSWER 28 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:226829 HCAPLUS Full-text

DOCUMENT NUMBER: 112:226829

TITLE: Negative-working photosensitive compositions

INVENTOR(S): Aoshima, Keitaro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01284849	A	19891116	JP 1988-115597	19880512 <--
JP 2613789	B2	19970528		
PRIORITY APPLN. INFO.:			JP 1988-115597	19880512 <--

ED Entered STN: 09 Jun 1990

AB Photosensitive compns. contain water-insol., alkali-soluble polymers having -CONHCO- group, and neg.-working photosensitive agents. These compns. provide good coatability on substrate, developability by aqueous alkali solns. containing or not containing organic solvents or surfactants, and highly printable lithog. plates. Thus, a 1.91:0.86:6.68:2.50 (weight) acrylonitrile-methacrylic acid-4-methacryloylaminophthalimide-Me methacrylate copolymer with weight-average mol. weight 64,000 was prepared. A composition containing 4-n-dodecylbenzenesulfonate of 4-diazodiphenylamine- HCHO condensate 0.5, above copolymer 5.0, Victoria Pure Blue BOH 0.1, malic acid 0.05, and F-containing surfactant 0.05 parts was applied on etched and anodized Al plate. Imagewise exposed plate was developed in an aqueous developer containing only Na silicate [SiO<sub>2</sub>/Na<sub>2</sub>O (mol) = 1.1] 20 g/L, with complete removal the polymer in unexposed part. Lithog. printing using this plate gave 150,000 printed copies without blemishes.

IT 126858-16-0

(neg.-working photosensitive compns. containing, aqueous developers-developable)

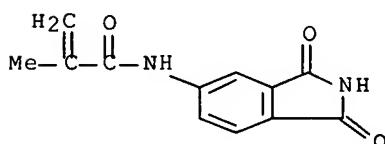
RN 126858-16-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N-(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)-2-methyl-2-propenamide, methyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 126858-15-9

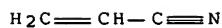
CMF C12 H10 N2 O3



CM 2

CRN 107-13-1

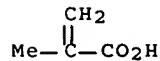
CMF C3 H3 N



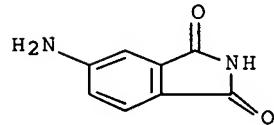
CM 3

CRN 80-62-6  
CMF C5 H8 O2

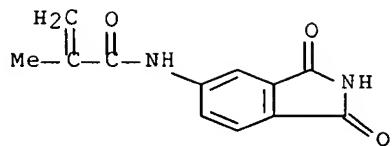
CM 4

CRN 79-41-4  
CMF C4 H6 O2

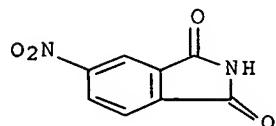
IT 3676-85-5P, 4-Aminophthalimide  
 (preparation and condensation of, with methacrylic chloride, monomer for  
 polymer preparation from, in manufacture of photosensitive compns.)  
 RN 3676-85-5 HCPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 5-amino- (CA INDEX NAME)



IT 126858-15-9P, 4-Methacryloylaminophthalimide  
 (preparation and polymerization of, in manufacture of photosensitive  
 compns.)  
 RN 126858-15-9 HCPLUS  
 CN 2-Propenamide, N-(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)-2-methyl-  
 (9CI) (CA INDEX NAME)



IT 89-40-7, 4-Nitrophthalimide  
 (reduction and copolymn. of, in manufacture of photosensitive compns.)  
 RN 89-40-7 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 5-nitro- (CA INDEX NAME)



IC ICM G03C001-71  
 ICS G03C001-68  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 35  
 ST lithog plate photosensitive aq developer; photosensitive plate carboximide contg polymer  
 IT Lithographic plates  
 (neg.-working, developable with aqueous developer, carboximide-containing polymers contained in)  
 IT Resists  
 (photo-, neg.-working, developable with aqueous developer, carboximide-containing polymers contained in)  
 IT 126858-16-0 126858-17-1 126858-18-2 126858-19-3  
 126858-20-6 126858-21-7 126882-81-3  
 (neg.-working photosensitive compns. containing, aqueous developers-developable)  
 IT 3676-85-5P, 4-Aminophthalimide  
 (preparation and condensation of, with methacrylic chloride, monomer for polymer preparation from, in manufacture of photosensitive compns.)  
 IT 126858-15-9P, 4-Methacryloylaminophthalimide  
 (preparation and polymerization of, in manufacture of photosensitive compns.)  
 IT 89-40-7, 4-Nitrophthalimide  
 (reduction and copolymn. of, in manufacture of photosensitive compns.)

L44 ANSWER 29 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1987:524617 HCAPLUS Full-text  
 DOCUMENT NUMBER: 107:124617  
 TITLE: Method and polymer for obtaining images  
 INVENTOR(S): Irving, Edward; Mueller, Beat; Schulthess, Adrian;  
 Hunziker, Max  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
 SOURCE: Eur. Pat. Appl., 34 pp.  
 CODEN: EPXXDW

DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 206983	A2	19861230	EP 1986-810214	19860516 <--
EP 206983	A3	19880928		
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
CA 1271768	A1	19900717	CA 1986-509478	19860520 <--
JP 62036404	A	19870217	JP 1986-118367	19860522 <--
US 4957988	A	19900918	US 1988-178810	19880328 <--
PRIORITY APPLN. INFO.:			GB 1985-12998	A 19850522 <--
			US 1986-865495	B1 19860520 <--

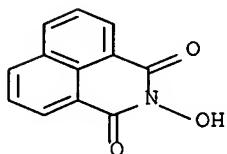
ED Entered STN: 05 Oct 1987

AB A method for image formation is described which has an organic polymer containing a photosensitive group in which a sulfonyloxy group is bonded through O to a C atom in an  $\alpha$ - or  $\beta$ -position to a carbonyl group, which in turn is in an  $\alpha$ - or  $\beta$ -position to an aromatic group, or a sulfonyloxyimide group that is bonded through a carbonyl group or the S atom to an aromatic group. After imagewise exposure, the polymer is developed by treatment with an aqueous basic developer. To a 30% solution of the ester of N-(4-chlorocarbonylphenylsulfonyloxy)-1,8-naphthalimide with a p-tert-butylphenol-HCHO-phenol resin in 2-ethoxyethanol was added a 2% solution of crystal violet lactone and the mixture coated on a Cu-clad support, dried, exposed, and developed with a 1% NaOH solution to give a good image.

IT 7797-81-1  
 (esterification of, by chlorosulfonylbenzoic acid)

RN 7797-81-1 HCPLUS

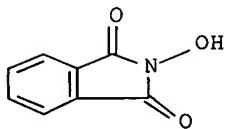
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IT 524-38-9, N-Hydroxyphthalimide  
 (esterification of, by chlorosulfonylbenzoyl chloride derivs.)

RN 524-38-9 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IT 110157-89-6 110161-71-2 110161-73-4

(photoresist compns. containing, pos.-working)

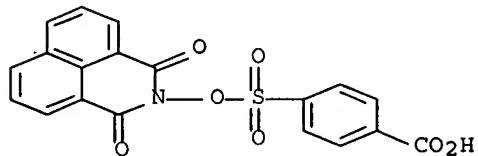
RN 110157-89-6 HCPLUS

CN Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol and phenol,  
4-[[[(1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)oxy]sulfonyl]benzoate  
(9CI) (CA INDEX NAME)

CM 1

CRN 110167-81-2

CMF C19 H11 N 07 S



CM 2

CRN 28453-20-5

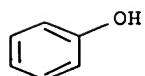
CMF (C10 H14 O . C6 H6 O . C H2 O)x

CCI PMS

CM 3

CRN 108-95-2

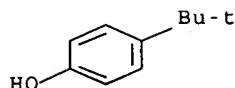
CMF C6 H6 O



CM 4

CRN 98-54-4

CMF C10 H14 O

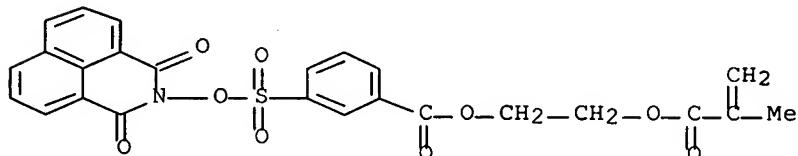


CM 5

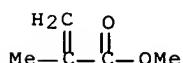
CRN 50-00-0  
CMF C H2 OH<sub>2</sub>C=O

RN 110161-71-2 HCAPLUS  
 CN Benzoic acid, 3-[[[(1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)oxy]sulfonyl]-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

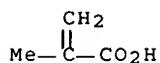
CRN 110161-70-1  
CMF C25 H19 N 09 S

CM 2

CRN 80-62-6  
CMF C5 H8 O2

CM 3

CRN 79-41-4  
CMF C4 H6 O2



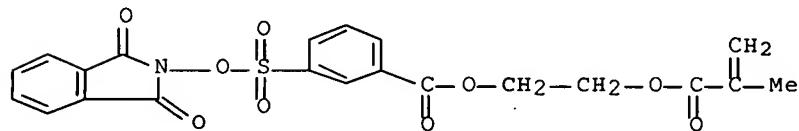
RN 110161-73-4 HCAPLUS

CN Benzoic acid, 3-[[{(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)oxy}sulfonyl]-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 110161-72-3

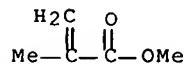
CMF C21 H17 N 09 S



CM 2

CRN 80-62-6

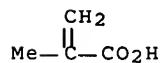
CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



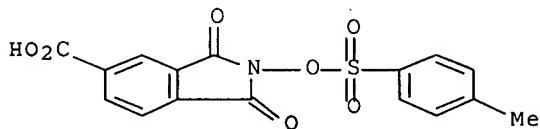
IT 110167-78-7P 110167-81-2P 110167-82-3P

(preparation and chlorination of)

RN 110167-78-7 HCAPLUS

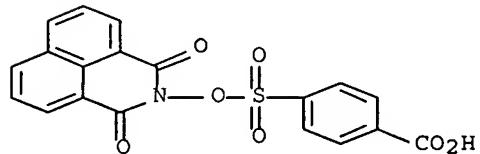
CN 1H-Isoindole-5-carboxylic acid, 2,3-dihydro-2-[(4-

methylphenyl)sulfonyloxy]-1,3-dioxo- (9CI) (CA INDEX NAME)



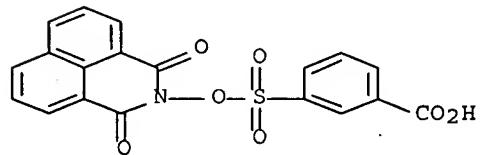
RN 110167-81-2 HCPLUS

CN Benzoic acid, 4-[[1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)oxy]sulfonyl]- (9CI) (CA INDEX NAME)



RN 110167-82-3 HCPLUS

CN Benzoic acid, 3-[[1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)oxy]sulfonyl]- (9CI) (CA INDEX NAME)

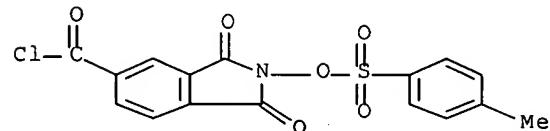


IT 110167-79-8P 110167-83-4P

(preparation and esterification by, of hydroxyethyl methacrylate)

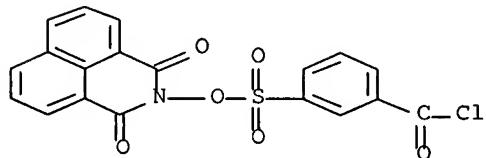
RN 110167-79-8 HCPLUS

CN 1H-Isoindole-5-carbonyl chloride, 2,3-dihydro-2-[(4-methylphenyl)sulfonyloxy]-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 110167-83-4 HCAPLUS

CN Benzoyl chloride, 3-[[1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl]oxy]sulfonyl]- (9CI) (CA INDEX NAME)

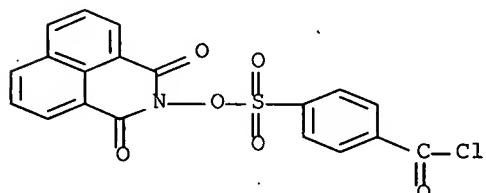


IT 110167-84-5P

(preparation and esterification by, of novolak resin)

RN 110167-84-5 HCAPLUS

CN Benzoyl chloride, 4-[[1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl]oxy]sulfonyl]- (9CI) (CA INDEX NAME)

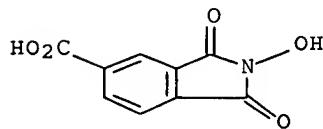


IT 110167-77-6P

(preparation and esterification of, by toluenesulfonyl chloride)

RN 110167-77-6 HCAPLUS

CN 1H-Isoindole-5-carboxylic acid, 2,3-dihydro-2-hydroxy-1,3-dioxo- (CA INDEX NAME)

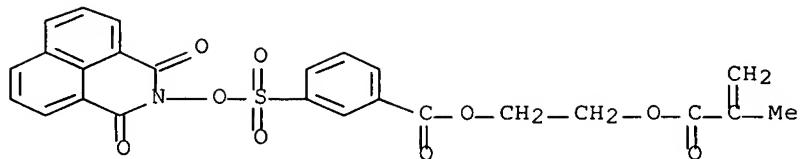


IT 110161-70-1P

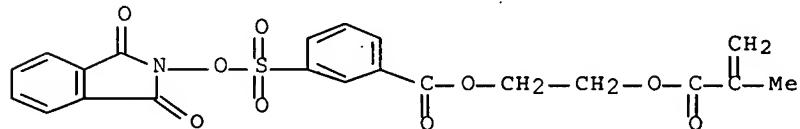
(preparation and polymerization of)

RN 110161-70-1 HCAPLUS

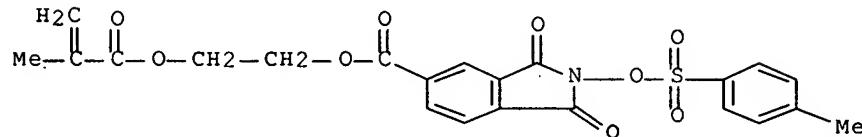
CN Benzoic acid, 3-[[1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl]oxy]sulfonyl]-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)



IT 110161-72-3P  
 (preparation and spectra of)  
 RN 110161-72-3 HCPLUS  
 CN Benzoic acid, 3-[[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)oxy]sulfonyl]-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester (9CI)  
 (CA INDEX NAME)



IT 110167-80-1P  
 (preparation of)  
 RN 110167-80-1 HCPLUS  
 CN 1H-Isoindole-5-carboxylic acid, 2,3-dihydro-2-[(4-methylphenyl)sulfonyloxy]-1,3-dioxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)



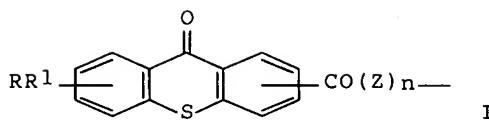
IC ICM G03F007-10  
 ICS C08G085-00; C08F002-00; C08G008-28  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST pos working photoresist photosensitive polymer; sulfonyloxy group photosensitive polymer photoresist  
 IT Lithographic plates  
 (offset, pos.-working photoresist compns. containing sulfonyloxy group-containing photosensitive polymer for fabrication of)  
 IT Resists  
 (photo-, pos.-working, sulfonyloxy group-containing photosensitive polymers for)  
 IT 7797-81-1  
 (esterification of, by chlorosulfonylbenzoic acid)  
 IT 524-38-9, N-Hydroxyphthalimide 868-77-9

(esterification of, by chlorosulfonylbenzoyl chloride derivs.)  
 IT 77084-33-4  
 (photoresist compns. containing sulfonyloxy group-containing polymer and, pos.-working)  
 IT 110157-89-6 110161-71-2 110161-73-4  
 110161-75-6  
 (photoresist compns. containing, pos.-working)  
 IT 110167-78-7P 110167-81-2P 110167-82-3P  
 (preparation and chlorination of)  
 IT 110167-79-8P 110167-83-4P  
 (preparation and esterification by, of hydroxyethyl methacrylate)  
 IT 110167-84-5P  
 (preparation and esterification by, of novolak resin)  
 IT 110167-77-6P  
 (preparation and esterification of, by toluenesulfonyl chloride)  
 IT 110161-70-1P  
 (preparation and polymerization of)  
 IT 110161-72-3P 110161-74-5P  
 (preparation and spectra of)  
 IT 110167-80-1P  
 (preparation of)

L44 ANSWER 30 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1985:532394 HCPLUS Full-text  
 DOCUMENT NUMBER: 103:132394  
 TITLE: Polymers having thioxanthone radicals as side chains  
 INVENTOR(S): Kvita, Vratislav; Zweifel, Hans; Roth, Martin;  
 Felder, Louis  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.  
 SOURCE: Can., 43 pp. Division of Can. Appl. No. 370,083.  
 CODEN: CAXXA4  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 1180486	A2	19850101	CA 1983-431121 <--	19830622
CA 1163271	A1	19840306	CA 1981-370083 <--	19810204
US 4594400	A	19860610	US 1984-652683 <--	19840919
PRIORITY APPLN. INFO.:			CH 1980-917 <--	A 19800205
			CA 1981-370083 <--	A3 19810204
			US 1981-228533 <--	A3 19810126
			US 1982-373572 <--	A1 19820430

ED Entered STN: 19 Oct 1985  
 GI



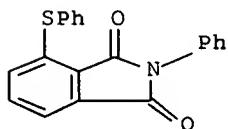
AB Polymers are described which are useful as sensitizers for photocrosslinkable polymers or as initiators. The polymers have a mean mol. weight of  $\geq 1000$  and contain in a side chain a thioxanthone group I (R = H, halo, CN, OH, SH, NH<sub>2</sub>, NO<sub>2</sub>, phenylsulfonyl, alkylsulfonyl, alkyl, alkoxy, alkylthio, N,N-dialkylamino, CO-alkyl, in each case C1-4 alkyl; R1 = H, halo, OH, SH, alkyl, alkoxy, alkylthio, N,N-dialkylamino, in each case C1-4 alkyl; Z = OR<sub>2</sub>, SR<sub>2</sub>, NR<sub>2</sub>R<sub>3</sub> where R<sub>2</sub> = C<sub>2</sub>-23 alkylene, C<sub>2</sub>-13 alkylene, cyclopentylene, cyclohexylene, phenylene, -(CH<sub>2</sub>CH<sub>2</sub>O)<sub>x</sub>-CH<sub>2</sub>CH<sub>2</sub>, x = 1-5 and R<sub>3</sub> = H, alkyl). Thus, a mixture containing vinyl thioxanthone-1-carboxylate 2 g, DMF 49 mL, azoisobutyronitrile 0.02 g was polymerized under N atmospheric at 70° for 24 h to give a polymeric sensitizer, which was precipitated in MeOH and dried. A solution containing  $\beta$ -(methacryloyloxy)ethyl ester of dimethylmaleimide 465.5, Et acrylate 49.15 g, 1-acetoxy-2-ethoxyethane 960 mL was mixed with a solution of azoisobutyronitrile 3.86 g in 1-acetoxy-2-ethoxyethane 25 mL at 80° under N atmospheric, and the obtained mixture was polymerized for 6 h. The solution was stabilized with 2.57 g of 2,6-di-tert-butyl-p-cresol, viscosity of the solution was in accordance with DIN 53.015 = 829 + 103 Pa s (the obtained polymer mean mol. weight 1,000,000). The polymer solution was mixed with the above polymeric sensitizer at 2.7 weight% and diluted to 15 weight% solids, to be coated on a Cu support to give 3  $\mu$  thick dry coating. The coating was imagewise exposed to high pressure Hg lamp at a distance of 60 cm and developed 2 min in 1,1,1-trichloroethane. The resulting relief image was rendered visible by etching the exposed Cu parts with 50% FeCl<sub>3</sub>.

IT 58045-34-4P

(preparation and reaction with sodium hydroxide)

RN 58045-34-4 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-phenyl-4-(phenylthio)- (9CI) (CA INDEX NAME)



IC ICM C08F008-34

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Lithographic plates

(photosensitive imaging compns. for preparation of, with polymeric sensitizers or initiators containing thioxanthone radicals as side chains)

IT Resists

(photo-, polymers having thioxanthone radicals as side chains as initiators and sensitizers for photosensitive compns. for)

IT 58045-34-4P

(preparation and reaction with sodium hydroxide)

L44 ANSWER 31 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1985:430329 HCPLUS Full-text  
 DOCUMENT NUMBER: 103:30329  
 TITLE: Photosolubilizable composition  
 INVENTOR(S): Aoai, Toshiaki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 60 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 130599	A2	19850109	EP 1984-107587	19840629 <--
EP 130599	A3	19861015		
EP 130599	B1	19880810		
R: DE, FR, GB, NL				
JP 60010247	A	19850119	JP 1983-117769	19830629 <--
JP 04007502	B	19920212		
JP 60037549	A	19850226	JP 1983-146095	19830810 <--
JP 03080298	B	19911224		
JP 60121446	A	19850628	JP 1983-230377	19831206 <--
JP 05044664	B	19930707		
US 4816375	A	19890328	US 1987-44161	19870430 <--
US 4752552	A	19880621	US 1987-85230	19870812 <--
PRIORITY APPLN. INFO.:			JP 1983-117769	A 19830629
			<--	
			JP 1983-146095	A 19830810
			<--	
			JP 1983-230377	A 19831206
			<--	
			US 1984-625079	A3 19840627
			<--	

OTHER SOURCE(S): CASREACT 103:30329

ED Entered STN: 27 Jul 1985

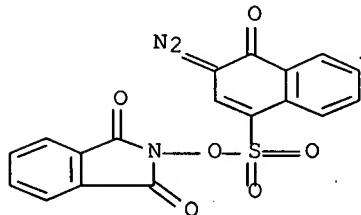
AB A pos.-working photoresist composition is described which is useful for preparation of lithog. printing plates, proofs for multicolor printing, drawings for overhead projectors, integrated circuits, photomasks etc. The composition contains a compound capable of producing an acid when irradiated with actinic rays and compound having  $\geq 1$  silyl ether or ester group capable of being decomposed by this acid. Thus, an Al plate support was coated with a composition containing  $[(CH_2)_8OSiMe_2O)_n$  (number average mol. weight 1400-2000) 0.31, cresol-HCOH novolak resin 1, 1,2-naphthoquinone-2-diazido-4-sulfonyl chloride 0.05, Oil Blue 603 0.01, ethylene dichloride 10, the cellosolve 10 g, imagewise exposed and developed in aqueous DP-3B developer. The plate show high photosensitivity.

IT 84938-98-7

(photosolubilizable imaging composition containing, for printing plates preparation)

RN 84938-98-7 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[[(3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



IC ICM G03F007-10

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photosolubilizable imaging compn lithog plate;  
photoresist pos compn silyl ether; photoimaging  
photosolubilizable compn silyl ether; printing proof photosolubilizing  
compn; elec circuit photosolubilizing compn; photomask lithog  
photosolubilizing compn

IT Lithographic plates

Photomasks

(photosolubilizable composition for preparation of, containing  
photosensitiveacid-forming compound and compound containing silyl ether or silyl ester  
group)

IT Resists

(photo-, photosolubilizable composition for preparation of, containing  
photosensitive acid-forming compound and compound containing silyl ether or  
silyl ester group)

IT 90-94-8 602-56-2 1328-54-7 3584-23-4 17937-66-5 26745-05-1

30281-72-2 36451-09-9 68541-73-1 71255-80-6 84938-98-7

96758-27-9 96758-28-0 96758-29-1 96758-30-4 96758-31-5

96758-32-6 96758-33-7 96758-34-8 96758-35-9 96758-36-0

96758-38-2 96758-39-3 96787-64-3 96788-79-3 96859-92-6

96859-93-7 97009-84-2

(photosolubilizable imaging composition containing, for printing plates  
preparation)

IT 2078-12-8P 18105-31-2P 96758-41-7P 96758-42-8P

(preparation and application of, for photosolubilizable imaging compns.,  
for lithog. plate fabrication)

L44 ANSWER 32 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:414592 HCAPLUS Full-text

DOCUMENT NUMBER: 103:14592

TITLE: Light-sensitive composite

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

JP 59218442

A

19841208

JP 1983-92877

19830526

JP 03041819

B

19910625

JP 1983-92877

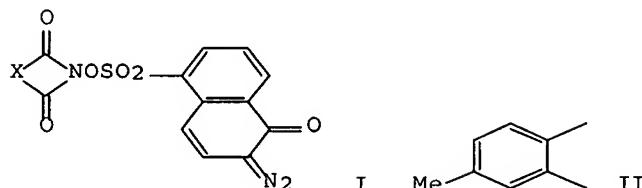
19830526

PRIORITY APPLN. INFO.:

&lt;--

ED Entered STN: 12 Jul 1985

GI



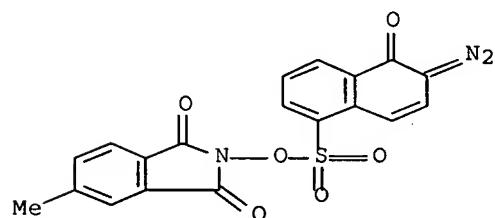
AB A light-sensitive composite contains  $\geq 1$  o-naphthoquinonediazide derivative of the formula I (X = divalent aliphatic group, divalent aromatic group). The composite provides a high-contrast visible image upon imagewise exposure to W light, and is hence useful for printing plate making and photoresist materials. Thus, a solution consisting of I (X = II) 0.5, a cresol-type novolak resin 2.7, Oil Blue #603 (Orient Chemical Ind.) 0.04 g, MeCOEt 30, and methylcellosolve acetate 30 mL was coated on an Al plate of 0.15 mm thickness. The resultant light-sensitive plate-making material showed high speed and good image discrimination.

IT 95965-94-9 95965-97-2

(photosensitive composition containing, for lithog. plate fabrication)

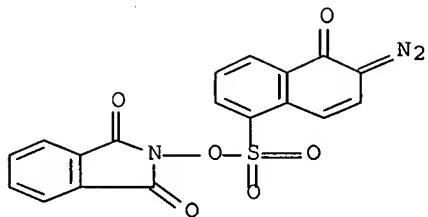
RN 95965-94-9 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[[(6-diazo-5,6-dihydro-5-oxo-1-naphthalenyl)sulfonyl]oxy]-5-methyl- (9CI) (CA INDEX NAME)

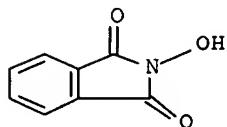


RN 95965-97-2 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[[(6-diazo-5,6-dihydro-5-oxo-1-naphthalenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



IT 524-38-9  
 (reaction of, with naphthoquinonediazidesulfonylchloride)  
 RN 524-38-9 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IC ICM G03C001-72  
 ICS G03C001-727  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST naphthoquinonediazide deriv lithog plate fabrication;  
 photomask naphthoquinonediazide deriv photopolymer;  
 photoresist naphthoquinonediazide deriv photopolymer;  
 platemaking lithog naphthoquinonediazide deriv photopolymer  
 IT Lithographic plates  
 (photosensitive composition containing naphthoquinonediazide derivative for fabrication of)  
 IT Phenolic resins, uses and miscellaneous  
 (photosensitive compns. containing naphthoquinonediazide derivative and, for lithog. plate fabrication)  
 IT Resists  
 (photo-, naphthoquinonediazide derivative-based photoimaging compns. in relation to)  
 IT 95965-94-9 95965-95-0 95965-96-1 95965-97-2  
 96324-87-7  
 (photosensitive composition containing, for lithog. plate fabrication)  
 IT 524-38-9 21715-90-2  
 (reaction of, with naphthoquinonediazidesulfonylchloride)

L44 ANSWER 33 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1984:601526 HCAPLUS Full-text  
 DOCUMENT NUMBER: 101:201526  
 TITLE: Radiation-sensitive imaging compositions  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58190947	A	19831108	JP 1983-61498 <--	19830407
US 4425424	A	19840110	US 1982-390488 <--	19820621
PRIORITY APPLN. INFO.:			US 1982-366886 <--	A 19820408
			US 1982-390488 <--	A 19820621

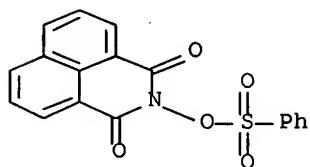
ED Entered STN: 25 Nov 1984

GI For diagram(s), see printed CA Issue.

AB Radiation sensitive imaging compns. contain a leuco dye having  $\geq 1$  removable H atom(s), removal of which produces a compound having different color from that of the leuco dye, and a photooxidizing agent I (A = 5- to 17-membered single or condensed ring; R = 5- to 10-membered hydrocarbon or heterocyclic ring) which reacts with the leuco dye upon irradiation. The imaging compns. may be added to photoresists and presensitized plates, so that the resin patterns can be visually inspected easily. Thus, 1,4-di( $\beta$ -hydroxyethoxy)cyclohexane-p-phenylenediacrylic acid copolymer, polystyrene, 2-[bis-(2-furoyl)methylene]-1-methylnaphtho[1,2-d]thiazoline, 2,6-di-tert-butylcresol, dihydroanhydropiperidinohexosene eductone, 4,4',4''-methylidene-tris(N,N-dipropylaniline), Monastral Red B, Modaflow and N-benzenesulfonyloxyphthalimide (II) were mixed and coated on an anodized Al support to give a presensitized lithog. plate. Imagewise exposure of the plate resulted in visible images (i.e. print-out images) having improved contrast over that of a control with N-benzyloxyphthalimide instead of II.

IT 23928-87-2P  
(preparation of)

RN 23928-87-2 HCAPLUS

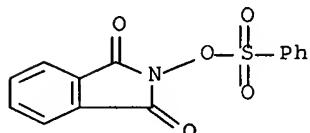
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(phenylsulfonyl)oxy]- (9CI)  
(CA INDEX NAME)

IT 19361-97-8 19361-98-9 82649-28-3

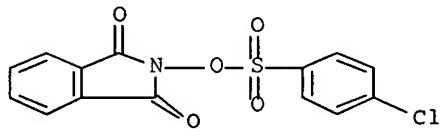
(radiation-sensitive imaging compns. containing leuco dye and)

RN 19361-97-8 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(phenylsulfonyl)oxy]- (CA INDEX NAME)

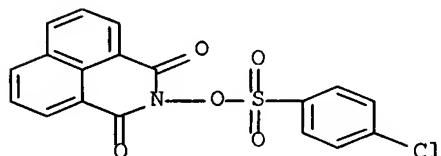


RN 19361-98-9 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[ (4-chlorophenyl)sulfonyl]oxy]- (9CI)  
(CA INDEX NAME)

RN 82649-28-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[[ (4-chlorophenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)

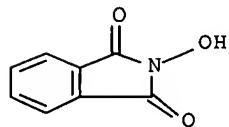


IT 524-38-9 7797-81-1

(reaction of, with benzenesulfonyl chloride and  
chlorobenzenesulfonyl chloride)

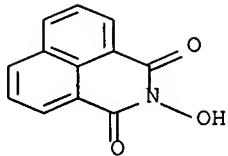
RN 524-38-9 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



RN 7797-81-1 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IC G03C001-727  
 ICA C07D209-48; C07D213-89; C07D215-58; C07D221-14  
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT Resists  
     (photo-, containing photochromic compns.)  
 IT Lithographic plates  
     Printing plates  
     (presensitized, photosensitive resin composition containing photochromic compns. for)  
 IT 23928-87-2P  
     (preparation of)  
 IT 5033-19-2 19361-97-8 19361-98-9 82649-28-3  
     88977-76-8  
     (radiation-sensitive imaging compns. containing leuco dye and)  
 IT 524-38-9 7797-81-1  
     (reaction of, with benzenesulfonyl chloride and  
     chlorobenzenesulfonyl chloride)

L44 ANSWER 34 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1984:94555 HCPLUS Full-text  
 DOCUMENT NUMBER: 100:94555  
 TITLE: Dye-forming compositions  
 INVENTOR(S): Altland, Henry W.; Ryan, Raymond W., Jr.; Senise, Phillip P., Jr.; Lindstrom, Michael J.  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 366,886, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4425424	A	19840110	US 1982-390488 <--	19820621
CA 1179179	A1	19841211	CA 1982-416828 <--	19821202
JP 58190947	A	19831108	JP 1983-61498 <--	19830407
PRIORITY APPLN. INFO.:			US 1982-366886 <--	A2 19820408
			US 1982-390488 <--	A 19820621

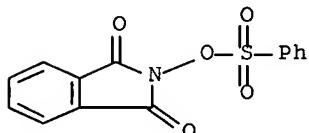
OTHER SOURCE(S): MARPAT 100:94555  
 ED Entered STN: 12 May 1984

AB A composition containing a leuco dye and an N-sulfonyloxy photooxidant provides a visual print-out of the light exposure and is useful in lithog. plate preparation, metal working layouts, photoresists, and the like. The composition can be used alone or in combination with a photopolymer. Thus, an anodized and subbed Al support was coated with a composition containing 1,4-di-( $\beta$ -hydroxyethoxy)cyclohexane-p-phenylenediacrylic acid polymer (19.48 weight% in 1,2-dichloroethane) 24.44, Piccolastic A-50 1.65, 2-[bis(2-furoyl)methylene]-1-methylnaphtho[1,2-d]thiazoline 0.14, 2,6-di-tert-butyl-p-cresol 0.19, dihydroanhydropiperidinohexose 0.02, 4,4',4'''-methylidenetrис(N,N-dipropylaniline) 0.23, Monastral Red B pigment (7.8%) 24.41, Modaflo (1%) 0.87, N- benzenesulfonyloxyphthalimide (photooxidant) 0.48, and 1,2-dichloroethane 198.06 g, imagewise exposed with 2000 W Xe lamp for 60 s, developed, and incubated 2 wk at 50° and 50% relative humidity. The resultant material showed a print-out d. and speed after incubation of 0.08 and 115, resp., vs. 0.12 and 107, resp., before incubation.

IT 19361-97-8P 19361-98-9P 82649-28-3P  
(preparation and photoimaging applications of, in combination with leuco dyes)

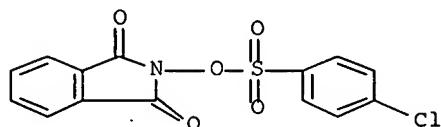
RN 19361-97-8 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(phenylsulfonyl)oxy]- (CA INDEX NAME)



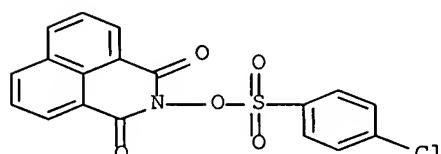
RN 19361-98-9 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-chlorophenyl)sulfonyl]oxy]- (9CI)  
(CA INDEX NAME)

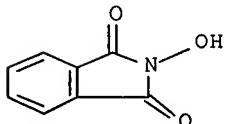


RN 82649-28-3 HCPLUS

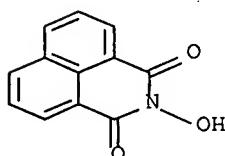
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(4-chlorophenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



IT 524-38-9  
 (reaction of, with triethylamine and benzenesulfonyl chloride)  
 RN 524-38-9 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IT 7797-81-1  
 (reaction of, with triethylamine and chlorobenzenesulfonyl chloride)  
 RN 7797-81-1 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IC G03C001-52; G03C001-68  
 INCL 430270000  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST leuco dye photooxidant photoimaging; lithog plate leuco dye photooxidant; photoresist leuco dye photooxidant  
 IT Lithographic plates  
 (photopolymeric composition for fabrication of, containing leuco dye and photooxidant for improved printout densities)  
 IT Resists  
 (photo-, photooxidant-leuco dye combination for)  
 IT 19361-97-8P 19361-98-9P 82649-28-3P  
 (preparation and photoimaging applications of, in combination with leuco dyes)  
 IT 524-38-9  
 (reaction of, with triethylamine and benzenesulfonyl chloride)  
 IT 7797-81-1  
 (reaction of, with triethylamine and chlorobenzenesulfonyl chloride)

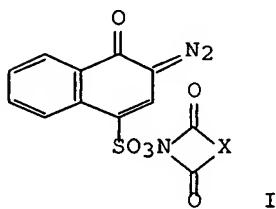
L44 ANSWER 35 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1983:189013 HCAPLUS Full-text  
 DOCUMENT NUMBER: 98:189013  
 TITLE: Photosensitive compositions and elements using them  
 INVENTOR(S): Nagano, Teruo; Nagashima, Akira

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. , Japan  
 SOURCE: Ger. Offen., 51 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3211960	A1	19821028	DE 1982-3211960	19820331
DE 3211960	C2	19910307		<--
JP 57163234	A	19821007	JP 1981-49716	19810401
JP 01011935	B	19890227		<--
GB 2099599	A	19821208	GB 1982-9020	19820326
GB 2099599	B	19841121		<--
FR 2503399	A1	19821008	FR 1982-5514	19820331
FR 2503399	B1	19830805		<--
US 4399210	A	19830816	US 1982-364274	19820401
PRIORITY APPLN. INFO.:			JP 1981-49716	A 19810401
			<--	

OTHER SOURCE(S): MARPAT 98:189013

ED Entered STN: 12 May 1984  
 GI



AB Photosensitive compns. giving a visible contrast between the exposed and nonexposed image areas without development contain  $\geq 1$  naphthoquinonediazide derivative (I; X = a divalent aliphatic, substituted aliphatic, aromatic, or substituted aromatic group) and a decolorizable material whose color tone is altered upon reaction with the photodecompr. products of I. The compns. are especially useful for the production of lithog. plates, relief plates, letterpress plates, integrated circuits, photomasks, and the like. Thus, a grained and anodized Al plate (0.15 mm) was coated with a photosensitive composition containing N-(1,2-naphthoquinone-2-diazido-4-sulfonyloxy)phthalimide 3.0, a cresol novolak 10.5, crystal violet 0.1 g, THF 70, Me cellosolve 15, and DMF 35 mL, dried, and imagewise exposed in a jet printer to show an optical d. in the nonexposed regions of 0.99 and an optical d. in the exposed regions of 0.77 vs. 1.00 and 8.95, resp., for a control containing N-(1,2-naphthoquinone-2-diazide-4-sulfonyl)morpholine.

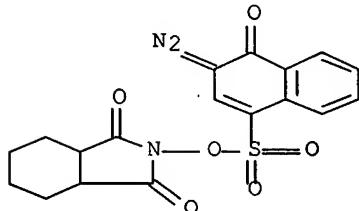
IT. 84938-93-2 84938-98-7 84939-00-4

(photoimaging composition containing, giving visible contrast between

exposed and nonexposed image areas in lithog. plate  
production)

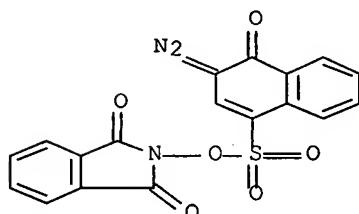
RN 84938-93-2 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl)sulfonyl]oxy]hexahydro- (9CI) (CA INDEX NAME)



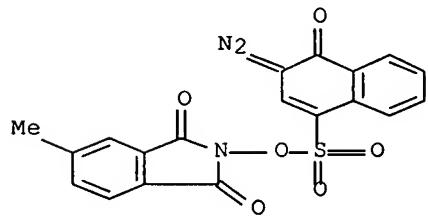
RN 84938-98-7 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



RN 84939-00-4 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl)sulfonyl]oxy]-5-methyl- (9CI) (CA INDEX NAME)

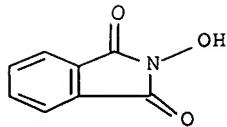


IT 524-38-9

(reaction of, with naphthoquinonediazidosulfonyl chloride)

RN 524-38-9 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IC G03C001-72; G03F007-08  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 25  
 ST naphthoquinonediazide deriv photoimaging compn; photoresist  
 naphthoquinonediazide deriv; photomask fabrication  
 naphthoquinonediazide deriv; lithog plate fabrication  
 naphthoquinonediazide deriv; printing plate fabrication  
 naphthoquinonediazide deriv; elec circuit fabrication  
 naphthoquinonediazide deriv  
 IT Lithographic plates  
 Photomasks  
 (photosensitive compns. containing naphthoquinonediazide derivative for fabrication of)  
 IT Vinyl acetal polymers  
 (formals, photoimaging compns. containing naphthoquinonediazide derivative and, giving visible contrast between exposed and nonexposed image areas in lithog. plate production)  
 IT Printing plates  
 (letterpress, photosensitive compns. containing naphthoquinonediazide derivative for fabrication of)  
 IT Phenolic resins, uses and miscellaneous  
 (novolaks, photoimaging compns. containing naphthoquinonediazide derivative and, giving visible contrast between exposed and nonexposed image areas in lithog. plate production)  
 IT Resists  
 (photo-, naphthoquinonediazide derivative-based)  
 IT Printing plates  
 (relief, photosensitive compns. containing naphthoquinonediazide derivative for fabrication of)  
 IT 84938-93-2 84938-94-3 84938-95-4 84938-98-7  
 84939-00-4 84939-04-8  
 (photoimaging composition containing, giving visible contrast between exposed and nonexposed image areas in lithog. plate production)  
 IT 76-61-9 85-43-8 121-69-7, uses and miscellaneous 548-62-9  
 1328-54-7 9016-83-5 25085-50-1 30939-08-3 62655-78-1  
 68584-99-6 82030-45-3  
 (photoimaging compns. containing naphthoquinonediazide derivative and, giving visible contrast between exposed and nonexposed image areas in lithog. plate production)  
 IT 524-38-9 6066-82-6  
 (reaction of, with naphthoquinonediazidosulfonyl chloride)

L44 ANSWER 36 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1983:152865 HCAPLUS Full-text  
 DOCUMENT NUMBER: 98:152865  
 TITLE: Photopolymerizable compositions containing  
 N-hydroxyamide and N-hydroxyimide sulfonates  
 INVENTOR(S): Renner, Carl A.  
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA

SOURCE: U.S., 12 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4371605	A	19830201	US 1980-214960	19801209 <--
PRIORITY APPLN. INFO.:			US 1980-214960	19801209 <--

OTHER SOURCE(S): MARPAT 98:152865

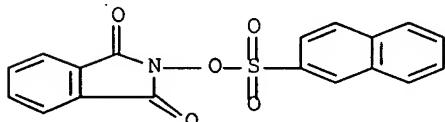
ED Entered STN: 12 May 1984

AB Photoimaging compns. useful in graphic arts (lithog. printing, gravure image, photoresist for elec. circuit fabrication, solder masks, vesicular imaging, decorative coatings, flexog. printing etc.) comprise a cationically photopolymerizable organic composition and a photoinitiator which is a sulfonic acid ester of a N-hydroxyamide or N-hydroxyimide. Thus, an anodized Al plate was coated with a composition containing N-tosyloxytetrachlorophthalimide 15 mg and 10% ECN-1299 epoxy resin in a 1:1 mixture of acetonitrile-1,2-dimethoxyethane 3 mL, exposed with a 27-kW sunlamp at 17 cm for 5 min, imagewise exposed for 30 min, and developed with Me<sub>2</sub>CO to give a clear image.

IT 83697-52-3  
 (photoimaging composition containing)

RN 83697-52-3 HCPLUS

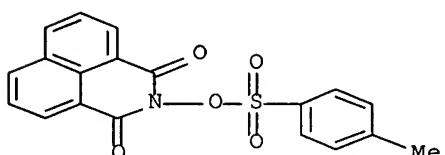
CN 1H-Isoindole-1,3(2H)-dione, 2-[(2-naphthalenylsulfonyl)oxy]- (9CI)  
 (CA INDEX NAME)



IT 5551-72-4P 41580-58-9P 85342-59-2P  
 85342-60-5P 85342-62-7P 85342-64-9P  
 (preparation and application of, as photoinitiator for photoimaging composition)

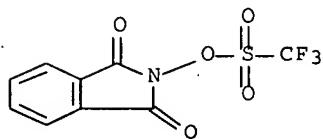
RN 5551-72-4 HCPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[[[(4-methylphenyl)sulfonyl]oxy]- (CA INDEX NAME)



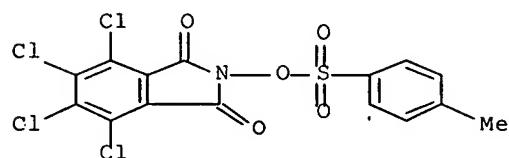
RN 41580-58-9 HCAPLUS

CN Methanesulfonic acid, 1,1,1-trifluoro-, 1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl ester (CA INDEX NAME)



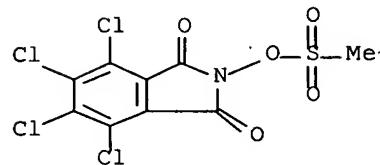
RN 85342-59-2 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrachloro-2-[(4-methylphenyl)sulfonyloxy]- (9CI) (CA INDEX NAME)



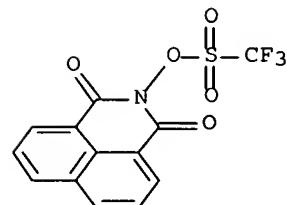
RN 85342-60-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrachloro-2-[(methylsulfonyloxy)- (9CI) (CA INDEX NAME)

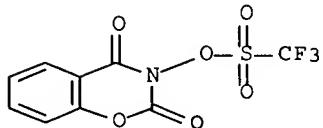


RN 85342-62-7 HCAPLUS

CN Methanesulfonic acid, 1,1,1-trifluoro-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)

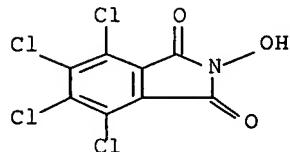


RN 85342-64-9 HCAPLUS  
 CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 3-[(trifluoromethyl)sulfonyloxy] -  
 (9CI) (CA INDEX NAME)



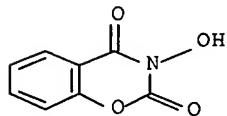
IT 85342-65-0  
 (reaction of, with toluenesulfonyl chloride in preparation of  
 photoinitiator for photopolymeric photoimaging compns.)

RN 85342-65-0 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrachloro-2-hydroxy- (CA INDEX  
 NAME)

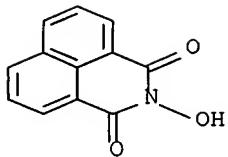


IT 5426-08-4 7797-81-1  
 (reaction with trifluoromethanesulfonyl chloride, in preparation of  
 photoinitiator for photopolymeric photoimaging composition)

RN 5426-08-4 HCAPLUS  
 CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 3-hydroxy- (8CI, 9CI) (CA INDEX  
 NAME)



RN 7797-81-1 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-hydroxy- (CA INDEX NAME)



IC G03C001-68  
 INCL 430280000  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST photoimaging photopolymer graphic art; hydroxyamide sulfonater photoinitiator photoimaging; photoresist lithog plate photoinitiator; printing elec circuit photoinitiator; decorative coating photopolymer photoinitiator; hydroxyimide photoimaging photoinitiator  
 IT Lithographic plates  
     (photoinitiators for photopolymerizable compns. for fabrication of, sulfonic acid esters of hydroxyamides and hydroxyimides as)  
 IT Printing plates  
     (flexog., photoinitiators for photopolymerizable compns. for fabrication of, sulfonic acid esters of hydroxyamides and hydroxyimides as)  
 IT Resists  
     (photo-, photopolymerizable compns. for, photoinitiators for, sulfonic acid esters of hydroxyamides and hydroxyimides as)  
 IT 83697-52-3  
     (photoimaging composition containing)  
 IT 5551-72-4P 41580-58-9P 85342-59-2P  
     85342-60-5P 85342-61-6P 85342-62-7P 85342-63-8P  
     85342-64-9P  
     (preparation and application of, as photoinitiator for photoimaging composition)  
 IT 85342-65-0  
     (reaction of, with toluenesulfonyl chloride in preparation of photoinitiator for photopolymeric photoimaging compns.)  
 IT 5426-08-4 7797-81-1  
     (reaction with trifluoromethanesulfonyl chloride, in preparation of photoinitiator for photopolymeric photoimaging composition)

L44 ANSWER 37 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1981:629389 HCPLUS Full-text  
 DOCUMENT NUMBER: 95:229389  
 TITLE: Photopolymerizable compositions featuring coinitiators  
 INVENTOR(S): Specht, Donald P.; Houle, Conrad G.; Farid, Samir Y.  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: U.S., 16 pp. Cont.-in-part of U.S. Ser. No. 49,661, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4289844	A	19810915	US 1980-184606 <--	19800905
CA 1137695	A1	19821214	CA 1979-336005 <--	19790920
US 4366228	A	19821228	US 1981-262675 <--	19810511
PRIORITY APPLN. INFO.:			US 1979-49661 <--	A2 19790618
			US 1980-184606 <--	A3 19800905

ED Entered STN: 12 May 1984

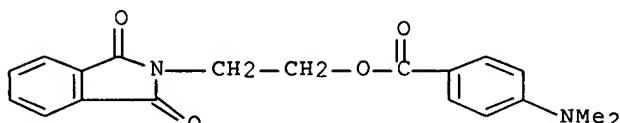
AB A photopolymerizable composition useful as a neg. resist in microelectronics, in photoimaging or as nonimaged polymeric coating comprises an ethylenically unsatd. monomer and a photopolymn. coinitiator containing an activator being an amine other than a 3-ketocoumarin, an acetic acid derivative, a phosphine, a phosphite, a bismuthine, an arsine, a stibine, a sulfinic acid or its ester, a sulfone or a stannate and a sensitizer being a coumarin derivative having absorption in 250-550 nm range and an substituent COR in 3 position (R = C1-12 alkyl or alkenyl, C5-20 carbocyclic or heterocyclic group). Thus, a Cu support maintained at 18° was coated with a layer containing pentaerythritol tetraacrylate 45, pentaerythritol tetramethacrylate 60, tert-Bu 4-hydroxy-5-methylphenyl sulfide 1.05, Acryloid B48N 120, Acryloid A-11 120, dibutyl phthalate 50.4, CH<sub>2</sub>Cl<sub>2</sub> 535.2 g, (1-pyrrolidinyl)coumarin 0.08, and N-phenylglycine 0.8 mmol in 2 mL of EtOH to give 300 μ wet thickness, heated at 66° for 10 min and at 90° for 10 min, imagewise exposed for 180 s through a Kodak T-14 step tablet (400 W medium-pressure Hg lamp), developed in 1,1,1-trichloroethane for 55 s, rinsed 5 s with fresh trichloroethane then with H<sub>2</sub>O, and dried to give an element for which a speed (observed as the last solid step produced) was 4 times of the speed for a control which used a mixture of Michler's ketone and benzophenone as the coinitiator.

IT 79984-83-1 79984-84-2

(photopolymg. composition containing coumarin photosensitizer and)

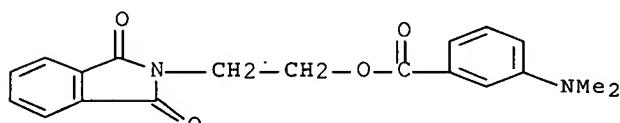
RN 79984-83-1 HCPLUS

CN Benzoic acid, 4-(dimethylamino)-, 2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)ethyl ester (9CI) (CA INDEX NAME)



RN 79984-84-2 HCPLUS

CN Benzoic acid, 3-(dimethylamino)-, 2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)ethyl ester (9CI) (CA INDEX NAME)



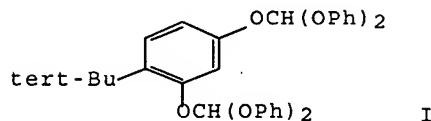
IC G03C001-68  
 INCL 430281000  
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST photopolymn initiator amine activator sensitizer; photosensitizer  
 polymn coumarin deriv; photoresist polymer coating  
 photopolymn  
 IT Electric circuits  
     Lithographic plates  
     Photoimaging compositions and processes  
     Printing plates  
     (photopolymerizable composition containing polymerization activator and  
     coumarin  
     photosensitizer for)  
 IT Resists  
     (photo-, photopolymerizable composition containing polymerization  
     activator and coumarin photosensitizer for)  
 IT 102-87-4 103-04-8 104-01-8 120-07-0 120-21-8 122-59-8  
     486-25-9 581-96-4 586-77-6 603-48-5 614-30-2 620-40-6  
     779-52-2 853-39-4 1424-66-4 1758-25-4 1864-92-2 1877-75-4  
     1918-77-0 2635-75-8 3096-44-4 3096-56-8 3406-77-7 10404-24-7  
     54441-61-1 63226-13-1 65876-10-0 77031-63-1 77819-89-7  
     79984-82-0 79984-83-1 79984-84-2 79984-85-3  
     79984-86-4 79984-87-5  
     (photopolymg. composition containing coumarin photosensitizer and)

L44 ANSWER 38 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:575685 HCAPLUS Full-text  
 DOCUMENT NUMBER: 87:175685  
 TITLE: Radiation-sensitive copying composition  
 INVENTOR(S): Buhr, Gerhard; Ruckert, Hans; Frass, Hans W.  
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 135 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2610842	A1	19760930	DE 1976-2610842	19760315 <--
DE 2610842	C3	19790222		
CH 621416	A5	19810130	CH 1975-3953	19750327 <--
SE 7602345	A	19760928	SE 1976-2345	19760225 <--
SE 412128	C	19800605		
NL 7603032	A	19760929	NL 1976-3032	19760323 <--
NL 185244	B	19890918		
NL 185244	C	19900216		
BE 839974	A1	19760924	BE 1976-165515	19760324 <--
US 4101323	A	19780718	US 1976-669892	19760324 <--
GB 1548757	A	19790718	GB 1976-12045	19760325

BR 7601873	A	19760928	BR 1976-1873	19760326
DK 7601364	A	19760928	DK 1976-1364	19760326
DK 145957	B	19830425		
DK 145957	C	19830926		
FR 2305757	A1	19761022	FR 1976-8845	19760326
ZA 7601861	A	19770330	ZA 1976-1861	19760326
ES 446435	A1	19780316	ES 1976-446435	19760326
CA 1093368	A1	19810113	CA 1976-248914	19760326
JP 51120714	A	19761022	JP 1976-34157	19760327
JP 60020738	B	19850523		
AU 7612431	A	19771006	AU 1976-12431	19760329
AU 507618	B2	19800221		
PRIORITY APPLN. INFO.:			CH 1975-3953	A 19750327
ED	Entered STN: 12 May 1984			
GI				

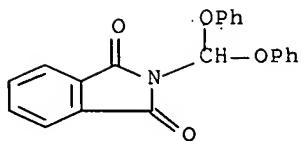


**AB** Pos.-working copying compns., which are sensitive to both light and electron radiation, are composed of a support coated with a composition containing a compound capable of splitting off an acid, a compound containing  $\geq 1$  orthocarboxylic ester group and/or a carboxamide acetal group or  $\geq 1$  compound containing the acid cleavable group -COCHRCH- (R = aryloxy, arylsulfonylalkylamino, or a heterocycle), whose solubility is increased by the action of an acid, and a binder. Thus, a typical copying composition was prepared from MeCOEt 94.6, Alnovol PN 429 4.0, I 1.2, 1,2-naphthoquinone-2-diazide-4-sulfonyl chloride 0.2, and Crystal Violet 0.01 part by weight

**IT** 64524-27-2 64524-28-3 64524-32-9  
 (radiation-sensitive copying composition containing, pos.-working)

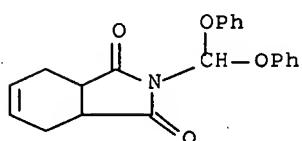
**RN** 64524-27-2 HCPLUS

**CN** 1H-Isoindole-1,3(2H)-dione, 2-(diphenoxymethyl)- (9CI) (CA INDEX NAME)



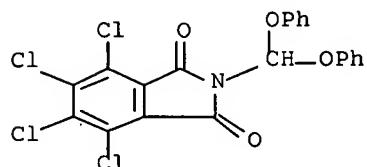
RN 64524-28-3 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(diphenoxymethyl)-3a,4,7,7a-tetrahydro-(9CI) (CA INDEX NAME)



RN 64524-32-9 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrachloro-2-(diphenoxymethyl)-(9CI) (CA INDEX NAME)



IC G03C001-72

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)

ST radiation sensitive copying compn; printing plate radiation sensitive compn; lithog plate radiation sensitive compn; photoresist radiation sensitive compn; electron resist radiation sensitive compn

IT Lithographic plates

Printing plates

(radiation-sensitive compns. containing acid-yielding compound, acid reactive compound, and binder for)

IT Resists

(electron-beam, pos.-working, containing acid-yielding compound, acid reactive compound and binder)

IT Resists

(photo-, pos.-working, containing acid-yielding compound, acid reactive compound and binder)

IT 7135-94-6 7135-95-7 38686-71-4 51668-26-9 52448-48-3

64524-23-8 64524-24-9 64524-25-0 64524-26-1 64524-27-2

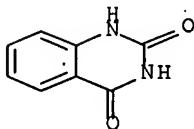
64524-28-3 64524-29-4 64524-30-7 64524-31-8

64524-32-9 64524-33-0 64524-34-1 64524-35-2 64524-36-3

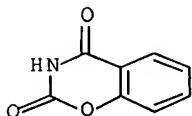
64524-37-4 64524-38-5 64524-39-6 64524-40-9 64524-41-0

64524-42-1 64524-43-2 64524-44-3 64524-45-4 64524-46-5  
 (radiation-sensitive copying composition containing, pos.-working)

L44 ANSWER 39 OF 40 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1976:534213 HCPLUS Full-text  
 DOCUMENT NUMBER: 85:134213  
 TITLE: Production of highly heat-resistant film  
 patterns from photoreactive polymeric precursors.  
 Part 1. General principle  
 AUTHOR(S): Rubner, Roland  
 CORPORATE SOURCE: Forschungslab., Siemens A.-G., Erlangen, Fed. Rep. Ger.  
 SOURCE: Siemens Forschungs- und Entwicklungsberichte (1976), 5(2), 92-7  
 CODEN: SFEBBL; ISSN: 0370-9736  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 12 May 1984  
 AB Soluble polymeric precursors of highly heat-resistant classes of compds., with chain segments linked by bridges that carry amide groups possess, adjacent to these bridges, photoreactive groups R\* bound in an ester-like fashion. As a consequence they can be converted to crosslinked film patterns by photomechanical means. Because of their special chemical structure these film patterns can subsequently be converted into highly heat-resistant layered structures suitable for use in photolithog., simply by tempering. In this process the photoreactive groups and the crosslinking bridges are set free as alcs. and polyalcs. resp. They can be volatilized by a suitable choice of tempering conditions. Highly heat- resistant compds. include polyimides, polyamidoimides, polyester imides, polyhydantoinimides, polyquinazobinodionimides, polybenzoxazinodiones, polyquinazolinodiones, and polyisoindoloquinazolinodiones. The chemical reactions involved in the change from soluble precursor through photochem. crosslinked intermediates to heat-resistant final products of these compds. are shown. Suitable photoreactive groups R\* are derived from alcs. with functional groups capable of dimerizing or polymerizing. Allyloxy, methacrylatoethoxy, and maleimidomethoxy groups are especially suited. The photoreactive polymers can be handled with the usual methods of photoresist technol. Specific material properties can be obtained, such as high photosensitivities and good processing properties combined.  
 IT 86-96-4D, 2,4(1H,3H)-Quinazolinedione, polymers  
 2037-95-8D, 2H-1,3-Benzoxazine-2,4(3H)-dione, polymers  
 (heat-resistant film patterns from photoreactive)  
 RN 86-96-4 HCPLUS  
 CN 2,4(1H,3H)-Quinazolinedione (CA INDEX NAME)



RN 2037-95-8 HCPLUS  
 CN 2H-1,3-Benzoxazine-2,4(3H)-dione (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST polymer photoresist lithog  
 IT Polyimides  
     (hydantoin-containing and quinazolinodione-containing, heat-  
     resistant film patterns from photoreactive)  
 IT Resists  
     (photo-, from photoreactive polymeric precursors for  
     heat-resistant film patterns)  
 IT Printing plates  
     (photoresists containing photoreactive polymeric precursors  
     for)  
 IT Polyesters, uses and miscellaneous  
     (polyimide-, heat-resistant film patterns from  
     photoreactive)  
 IT 86-96-4D, 2,4(1H,3H)-Quinazolinodione, polymers  
 2037-95-8D, 2H-1,3-Benzoxazine-2,4(3H)-dione, polymers  
 30354-60-0D, 7H,9H-Benzo[1'',2'':3,4:4'',5'':3',4']dipyrrolo[2,1-  
 b:2',1'-b']diquinazoline-7,9,16,18-tetrone, polymers  
     (heat-resistant film patterns from photoreactive)

L44 ANSWER 40 OF 40 HCAPLUS COPYRIGHT 2007 ACS on STN

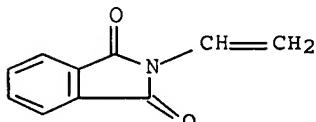
ACCESSION NUMBER: 1974:497798 HCAPLUS Full-text  
 DOCUMENT NUMBER: 81:97798  
 TITLE: Light sensitive reproduction and electron  
       beam-sensitive material  
 INVENTOR(S): Lewis, James M.; Wainer, Eugene  
 PATENT ASSIGNEE(S): Horizons Research Inc.  
 SOURCE: U.S., 18 pp. Division of U.S. 3,769,023.  
       CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3820993	A	19740628	US 1973-371431	19730619 <--
US 3769023	A	19731030	US 1971-141393	19710507 <--
PRIORITY APPLN. INFO.:			US 1971-141393	A3 19710507 <--

ED Entered STN: 12 May 1984  
 AB Light-sensitive and electron-beam sensitive photopolymerizable compns.  
       composed of an ethylenically unsatd. N-vinyl monomer,  $\geq 1$  organic compound  
       capable of forming free radicals on exposure to a suitable dose of radiation,  
       and a hydroxypropyl cellulose with a mol. weight of .apprx.25,000-1,000,000 as  
       the binder are useful in preparing pos. and/or neg. copies, planog. and deep  
       etch lithog. plates, thin and thick film printed circuits. Thus, a solution  
       containing N-vinylcarbazole 150, 2,6-di-tert-butyl-p-cresol 50, Ph3Sb 10, 3-  
       ethylrhodanine 50, CHI3 100, hydroxypropyl cellulose (mol. weight 50,000) 400

g, CH<sub>2</sub>Cl<sub>2</sub> 4000 cm<sup>3</sup>, and THF 2000 cm<sup>3</sup> was coated on a subbed poly(ethylene terephthalate) support to a 3 mil wt thickness, dried at 90° for 30 sec, exposed through a step wedge for a total exposure of 150 mJ using 7 15-W black light fluorescent lamps, and the faint greenish yellow image fixed at 170° for 90 sec to give a Dmax. of 2.22.

IT 3485-84-5  
 (photopolymerizable compns. containing free-radical photoinitiator, hydroxypropylcellulose binder, and, for resists)  
 RN 3485-84-5 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-ethenyl- (CA INDEX NAME)



IC G03C  
 INCL 096035100  
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST vinyl heterocycle photopolymer imaging; electron beam recording polymer; lithog polymer recording; printed circuit polymer recording  
 IT Resists  
 (electron-beam and photo-, photopolymerizable compns. containing free-radical photoinitiators, hydroxypropyl cellulose binder, and vinyl monomers for)  
 IT Glass  
 Plastics  
 (etching of, resists compns. containing free-radical photoinitiator, hydroxypropyl cellulose binder, and vinyl monomers for)  
 IT Lithographic plates  
 Printing plates  
 (photopolymerizable compns. containing free-radical photoinitiators, hydroxypropyl cellulose binder, and vinyl monomers for)  
 IT 81-63-0 81-64-1 83-34-1 86-74-8 89-25-8 90-46-0 103-84-4  
 119-58-4 120-72-9 122-39-4 129-73-7 509-34-2 517-22-6  
 517-51-1 548-61-8 603-48-5 637-31-0 897-55-2 1612-64-2  
 2123-34-4 3191-58-0 4822-44-0 7030-99-1 7478-69-5 10551-18-5  
 23681-60-9 25962-05-4 41504-99-8 53014-20-3 53167-60-5  
 53167-61-6 53167-71-8 53724-91-7 53724-92-8  
 (color former, photopolymerizable composition containing, for electron-beam resist, photoresist, and photog. application)  
 IT 67-72-1 75-47-8 75-95-6 86-93-1 95-14-7 141-84-4 149-30-4  
 558-13-4 882-33-7 2103-88-0 2382-96-9 7402-45-1 53741-93-8  
 (photoinitiator, for photopolymerizable compns. for electron-beam resist, photoresist, and photog. applications)  
 IT 7409-01-0  
 (photoinitiator, for photopolymerizable compns. for photoresists)  
 IT 12758-80-4  
 (photopolymerizable composition containing free-radical photoinitiator, hydroxypropylcellulose binder and, for electron-beam resist, photoresist, and photog. applications)  
 IT 9004-64-2 12758-79-1 13401-81-5 26306-58-1 36001-77-1

36001-83-9

(photopolymerizable composition containing free-radical photoinitiator,  
hydroxypropylcellulose binder and, for photoresist and  
photog. applications)

IT 4091-13-8

(photopolymerizable composition containing free-radical photoinitiator,  
hydroxypropylcellulose binder, and for photoresist and  
photog. applications)

IT 1072-63-5

(photopolymerizable compns. containing free-radical photoinitiator,  
hydroxypropylcellulose binder, and for resists)

IT 110-26-9 119-53-9 3485-84-5

(photopolymerizable compns. containing free-radical photoinitiator,  
hydroxypropylcellulose binder, and, for resists)

IT 79-06-1, uses and miscellaneous

(photopolymerizable compns. containing free-radical photoinitiator,  
hydroxypropylcellulose binder, and, for resists)

IT 1484-13-5 7648-01-3

(photopolymerizable compns. containing, for photoresists and  
photog. application)

=> d his nofile

(FILE 'HOME' ENTERED AT 09:29:56 ON 02 NOV 2007)

FILE 'HCAPLUS' ENTERED AT 09:30:07 ON 02 NOV 2007

L1 1 SEA ABB=ON PLU=ON US20060019191/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 09:30:22 ON 02 NOV 2007

L2 5 SEA ABB=ON PLU=ON (100346-90-5/BI OR 20871-03-8/BI OR  
4297-75-0/BI OR 681430-23-9/BI OR 681430-24-0/BI)

L3 STR

L4 50 SEA SSS SAM L3

L5 SCR 2043

L6 50 SEA SSS SAM L3 NOT L5

L7 SCR 2043 OR 2040 OR 1918 OR 1843

L8 50 SEA SSS SAM L3 NOT L7

L9 SCR 2043 OR 2040 OR 1918 OR 1843 OR 2016 OR 2026

L10 50 SEA SSS SAM L3 NOT L9

L11 STR L3

L12 50 SEA SSS SAM L11 NOT L9

L13 STR

L14 50 SEA SSS SAM L11 NOT L13 NOT L9

L15 9424 SEA ABB=ON PLU=ON 591.160/RID

L16 244346 SEA ABB=ON PLU=ON 333.79/RID

L17 STR

L18 50 SEA SSS SAM L17

L19 2022 SEA ABB=ON PLU=ON 591.266/RID

L20 STR L17

L21 50 SEA SSS SAM L20

L22 313700 SEA ABB=ON PLU=ON 591.100/RID

L23 STR L20

L24 50 SEA SSS SAM L23

L25 244123 SEA ABB=ON PLU=ON 591.50/RID

L26 STR L11

L27 50 SEA SSS SAM L26

L28 22062 SEA ABB=ON PLU=ON 1784.14/RID

L29 831929 SEA ABB=ON PLU=ON L15 OR L16 OR L19 OR L22 OR L25 OR L28

L30 50 SEA SUB=L29 SSS SAM L11

L31 STR L11

L32 50 SEA SUB=L29 SSS SAM L31

L33 240554 SEA SUB=L29 SSS FUL L31

SAV L33 TEMP EOF629/A

L34 2 SEA ABB=ON PLU=ON L33 AND L2

FILE 'HCAPLUS' ENTERED AT 10:29:50 ON 02 NOV 2007

L35 74551 SEA ABB=ON PLU=ON L33

E PRINTING PLATES/CT

L36 19647 SEA ABB=ON PLU=ON "PRINTING PLATES"+PFT,NT/CT

L37 188 SEA ABB=ON PLU=ON L35 AND L36

L38 150 SEA ABB=ON PLU=ON L37 AND LITHOG?

L39 10 SEA ABB=ON PLU=ON L38 AND POLYMER?/SC,SX

L40 45 SEA ABB=ON PLU=ON L38 AND (PHOTORESIST? OR PHOTO(A)RESIST?  
? OR RESIST?)

L41 1 SEA ABB=ON PLU=ON L40 AND L1

L42 9 SEA ABB=ON PLU=ON L40 AND (POF OR PRP)/RL

L43 45 SEA ABB=ON PLU=ON L40 OR L42

L44 40 SEA ABB=ON PLU=ON L43 AND (1840-2003)/PRY,AY,PY